

LBT-A490

SERVICE MANUAL

AEP Model
UK Model

- LBT-A490 is composed of following models.
As for the service manual, it is issued for each component model,
then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-A490		
	AEP	UK	GERMANY
COMPACT DISC STEREO DECK RECEIVER	HCD-A490		
TURN TABLE	PS-LX56P		
SPEAKER SYSTEM	SS-A490	SS-A390	SS-A490

SPECIFICATIONS

General

Power requirements UK model :
240V AC, 50 Hz
Other model :
220 — 230V AC, 50/60 Hz

Power consumption UK model : 130W
Other model : 150W

Mass Approx. 11.3Kg (24 lb 15 oz) (HCD-A490)
Approx. 2.3Kg (5 lb 1 oz) (PS-LX56P)

Dimensions Approx. 355 x 425 x 355 mm (w/h/d) (HCD-A490)
Approx. 355 x 95 x 345 mm (w/h/d) (PS-LX56P)

Design and specifications are subject to change without notice.

PARTS LIST

NOTE :

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-467-547-11	COMMANDER, STANDARD (RM-S421)
1-501-374-11	ANTENNA, LOOP
1-501-536-11	ANTENNA (Except Germany)
2-181-754-21	COVER, BATTERY (For RM-S421)
3-758-162-11	MANUAL, INSTRUCTION (ENGLISH) (UK)
3-758-162-31	MANUAL, INSTRUCTION (GERMAN) (Germany)
3-758-162-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-758-162-51	MANUAL, INSTRUCTION (DANISH, FINNISH) (AEP)
* 4-963-204-01	CUSHION
* 4-963-207-01	INDIVIDUAL CARTON (UK)
* 4-963-208-01	INDIVIDUAL CARTON (AEP, Germany)
A-4674-087-A	TURN TABLE MAT ASSY (PS-LX56P)
* 4-947-532-01	SNOW BOX (L) (PS-LX56P)
* 4-947-533-01	SNOW BOX (R) (PS-LX56P)

COMPONENT HI-FI STEREO SYSTEM
SONY®



9-959-375-11

Sony Corporation
Audio Group

English
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Published by Audio Sector Quality Assurance Dept.

HCD-A490

SERVICE MANUAL

*AEP Model
UK Model*



Photo : AEP model

HCD-A490 is the tuner, deck, CD and amplifier section in LBT-A490.

CD SECTION	Model Name Using Similer Mechanism		HCD-A390
	CD Mechanism Type		CDM14-5BD13
	Base Unit Type		BU-5BD13
	Optical Pick-up Type		KSS-240A
DECK SECTION	Model Name Using Similer Mechanism		HCD-A390
	Tape Transport Mechanism Type	DECK-A	TCM-190RA12AL
		DECK-B	TCM-190RB53A

SPECIFICATIONS

Compact disc deck receiver (HCD-A490)

Tuner Section

System	FM stereo
FM tuner section	FM/AM superheterodyne tuner
Tuning range	EE, CIS model : 65 to 74 MHz 87.5 to 108 MHz Except EE, CIS model : 87.5 to 108 MHz
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	G model : AM : 531 to 1,602 kHz IT model : AM : 522 to 1,611 kHz AEP, UK, EE, CIS, model : MW: 531 to 1,602 kHz LW: 153 to 279 kHz
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz

Amplifier Section

UK model :	
DIN power output	50 W + 50 W (6 ohms, at 1 kHz)
Continuous RMS power output	60 W + 60 W (6 ohms, at 1 kHz, 5% THD)
Music power output	90 W + 90 W (6 ohms)
Except UK model :	
DIN power output	40 W + 40 W (6 ohms, at 1 kHz)
Continuous RMS power output	45 W + 45 W (6 ohms, at 1 kHz, 5% THD)
Music power output	70 W + 70 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
PHONO IN	Phono	3 mV	47 kilohms
VIDEO IN	Phono	300 mV	47 kilohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response 15 Hz to 50 kHz ± 0.5 dB

— Continued on next page —

COMPACT DISC DECK RECEIVER
SONY®



Cassette deck Section

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB) With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	W. PEAK $\pm 0.2\%$ (DIN)

CD player Section

Laser	Semiconductor laser
Wavelength	780 – 790 nm
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.008% (1 kHz)
Channel separation	More than 90 dB (1 kHz)

General


Power requirements	Except UK model : 220 – 230 V AC, 50/60 Hz UK model : 240 V AC, 50Hz
Power consumption	Except UK model : 150 W UK model : 130 W
Mass	Approx. 11.3 kg (24 lb 15 oz)
Dimensions	Approx. 355 x 425 x 355 mm (14 x 16 $\frac{3}{4}$ x 14 inches) (w/h/d, including projections)

Supplied accessories

45-r/min adaptor	(1)
Remote commander RM-S421	(1)
FM wire antenna	(1)
(Except G model)	
AM loop antenna	(1)
Batteries Sony SUM-3 (NS)	(2)

Note

EE : East European model
G : German model
IT : Italian model

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.



Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

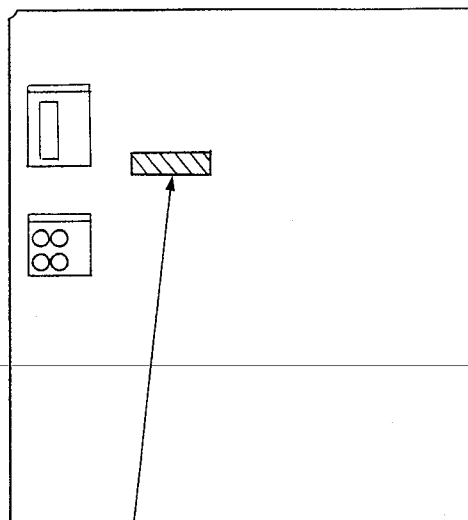
- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

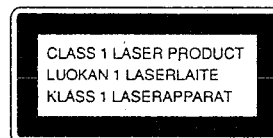
MODEL IDENTIFICATION

— BACK PANEL —



- 4-642-744-11 : AEP Model
- 4-642-744-21 : AEP Model
- 4-642-744-31 : AEP Model
- 4-642-744-41 : German Model
- 4-642-744-51 : Italian Model
- 4-642-744-61 : East European, CIS Model
- 4-642-744-71 : UK Model
- 4-642-744-81 : AEP Model

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.

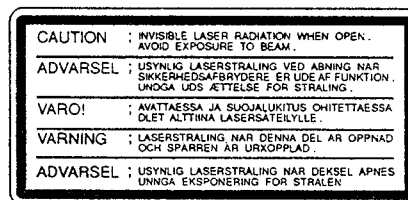


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SECTION 1 SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

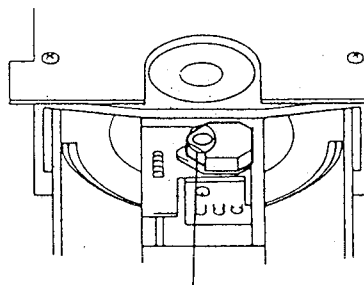
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

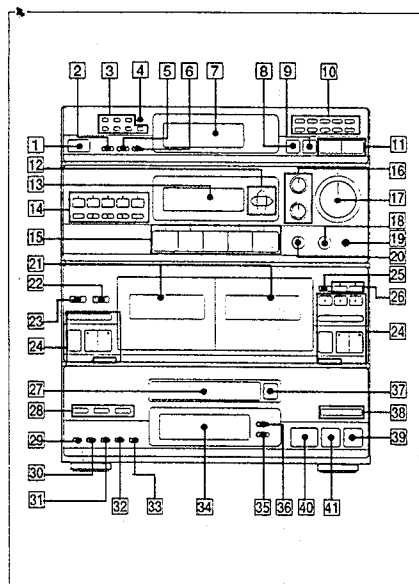
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



- ① Confirm that laser beam is speed.
- ② Up and down motion of the objective lens. (3 times)

Location of Controls

Refer to the pages indicated in parentheses for details.



Compact Disc Receiver HCD-A490

Tuner section

- 1 SYSTEM POWER switch (Page 5)
- 2 MEMORY button (Page 10)
- 3 Buttons for setting the clock and timer (Pages 6, 28, 29, 30)
- 4 DISPLAY button (Pages 11)
- 5 CHARACTER button (Page 11)
- 6 STEREO/MONO button (Page 9)
- 7 Display window
- 8 BAND button (Page 9)
- 9 SHIFT button (Page 10)
- 10 PRESET STATIONS numeric buttons (Pages 10, 11)
- 11 DUAL MODE TUNING +/- buttons (Pages 6, 9, 10, 11, 28, 29)

Amplifier section

- 12 CURSOR CONTROL buttons (Page 25)
- 13 SPECTRUM ANALYZER display (Page 26)
- 14 PRESET EQ/PERSONAL FILE buttons and indicators (Pages 24, 25, 26)
- 15 Function selectors and indicators
- 16 DBS LEVEL and DBS FREQUENCY controls (Page 7)
- 17 VOLUME control (Page 7)
- 18 BALANCE control (Page 7)
- 19 HEADPHONES jack (Page 7)
- 20 SURROUND control (Page 7)

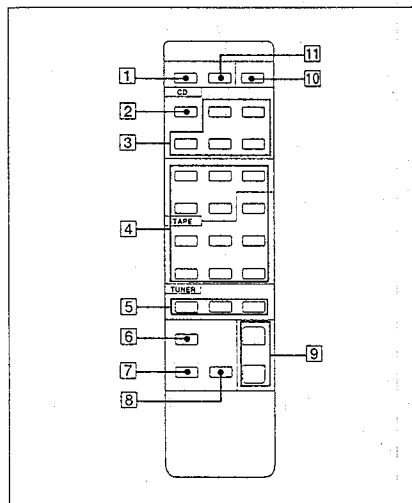
Cassette deck section

- 21 Cassette holders
- 22 DIRECTION MODE selector (Pages 12, 14, 16)
- 23 DOLBY NR (noise reduction) switch (Pages 12, 14)
- 24 Tape operation buttons (Pages 12, 14, 15)
 - ▶ (AMS*) Leftward fast winding button
 - ▶ (AMS*) Rightward fast winding button
 - ▶ Forward play button and indicator
 - ▶ Reverse play button and indicator
 - Stop button
 - ▶ EJECT button
 - PAUSE button and indicator (deck B only)
 - REC Record button and indicator (deck B only)
 - REC MUTE button (deck B only)
- 25 CD SYNCHRO button (Page 21)
- 26 DUBBING SPEED (HIGH/NORMAL) buttons and indicators (Page 16)

Compact disc player section

- 27 Disc Tray
- 28 PLAY MODE buttons
- CONTINUE button (Pages 19, 20, 23)
- SHUFFLE button (Page 19)
- PROGRAM button (Page 20, 22)
- 29 TIME button (Pages 17, 22)
- 30 REPEAT button (Page 19)
- 31 FADE button (Page 24)
- 32 MUSIC SCAN button (Page 17)
- 33 EDIT button (Page 23)
- 34 Display window
- 35 CLEAR (program clear) button (Page 20)
- 36 CHECK (program check) button (Page 20)
- 37 ▲ OPEN/CLOSE button (Page 17)
- 38 ◀▶ (AMS*) buttons (Page 18)
- 39 ■ (stop) button (Page 17)
- 40 ▶ (play) button (Page 17)
- 41 || (pause) button (Page 17)

* AMS is the abbreviation of Automatic Music Sensor.



Remote commander RM-5421

- 1 FUNCTION button
Each time this button is pressed, the function mode changes among VIDEO, TAPE, CD, TUNER and PHONO.
- 2 This button is inoperative with this unit.
- 3 CD operation buttons
◀▶ (AMS*) buttons, ▶ (play) button, || (pause) button, ■ (stop) button
- 4 TAPE DECK A and DECK B operation buttons
◀▶ (AMS*) buttons, ▶ Play buttons, ■ Stop buttons
DECK B only
● Recording button, || Pause button
- 5 Tuner operation buttons
SHIFT button
PRESET +/- buttons
These buttons are used to select the preset station number.
- 6 EQUALIZER button
- 7 SELECT 5 button
Each time the button is pressed, the preset equalization switches among 5 preset patterns (HALL, DANCE, VOCAL, POPS and BGM).
- 8 P. FILE button
- 9 VOL (volume) +/- buttons
- 10 SYSTEM POWER button
- 11 SLEEP button

* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2 GENERAL

This section is extracted from instruction manual.

SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured alcoholmoistened swab:

record/playback head	pinch roller
erase head	rubber belt
capstan	idler
- Demagnetize the record/playback head with a head demagnetizer.
(Head demagnetizer do not approach for the erase head.)
- Do not use a magnetized screwdriver for the adjustment.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustment should be performed with the rated power supply voltage unless otherwise noted.

[Torque Measurement]

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 65 g•cm 0.42 – 0.9 oz•inch
FWD Back Tension	CQ-102C	1 to 6 g•cm 0.014 – 0.08 oz•inch
REV	CQ-102RC	30 to 65 g•cm 0.42 – 0.9 oz•inch
REV Back Tension	CQ-102RC	1 to 6 g•cm 0.014 – 0.08 oz•inch
FF, REV	CQ-201B	70 to 120 g•cm 0.97 – 1.65 oz•inch

SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION

- The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
- The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch: OFF

Test tape

Tape	Contents	Used for
P-4-A100	10kHz, -10dB	Head Azimuth Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

[Record/playback Head Azimuth Adjustment]

Deck A Deck B

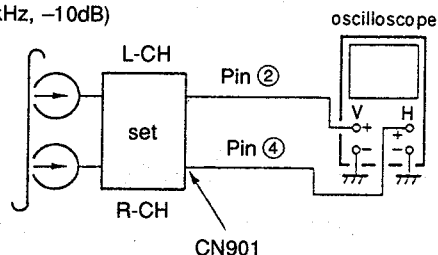
Procedure:

- FWD/REV: Playback mode

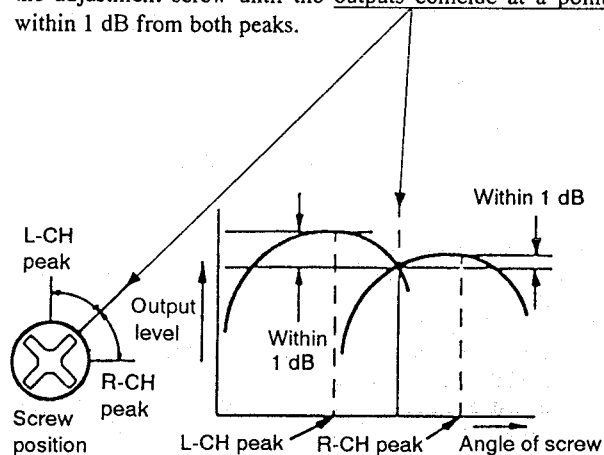
test tape

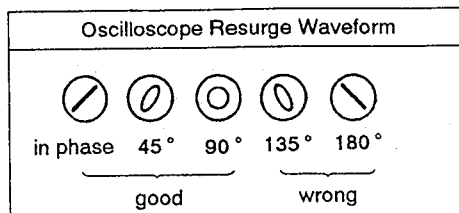
P-4-A100

(10kHz, -10dB)



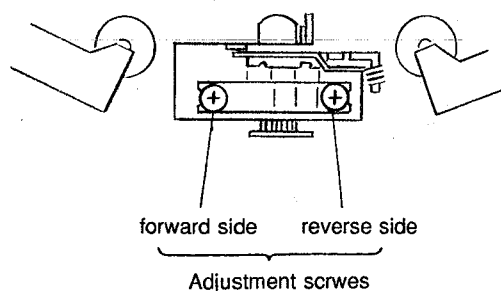
- Turn the adjustment screw and check where the output peaks are. If the peaks of L-CH and R-CH do not coincide, turn the adjustment screw until the outputs coincide at a point within 1 dB from both peaks.





3. Change the REV playback mode and repeat the steps 1 to 2.
4. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location: Record/playback head



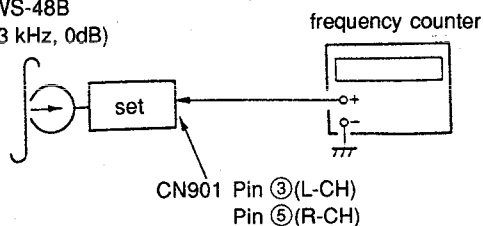
【Tape Speed Adjustment】 Deck A Deck B

Procedure:

- Adjust the high speed first, starting from Deck A and then Deck B.

— Playback Mode —

test tape
WS-48B
(3 kHz, 0dB)



(High Speed Adjustment)

1. Short-circuit CN904 (MAIN TC BOARD) with the power off.
2. Set deck A into the FWD mode.
3. Turn on the power, press the High speed DUB switch, and set high speed playback.
4. Adjust deck A : RV72A (H) so that the reading of the frequency counter becomes the specified value.
5. Stop deck A.
6. Carry out steps 2 to 5 for deck B in the same way.
7. After adjusting, unshort-circuit CN904.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (L), deck B: RV71B (L) so that the reading of the frequency counter becomes the the adjustment value.

Adjustment Values:

High Speed	$6000 \pm 30\text{Hz}$
Normal Speed	$3000 \pm 15\text{Hz}$

Adjust so that the difference between tape top and tape end is within 3%. Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

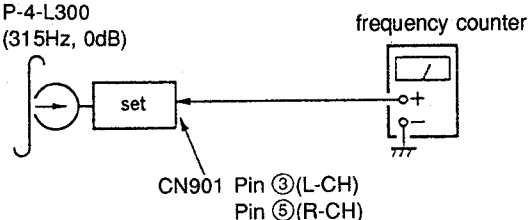
Adjustment Location: MD-A, B boards

【Playback Level Adjustment】 Deck A Deck B

Procedure:

— Playback Mode —

Test tape
P-4-L300
(315Hz, 0dB)



Adjust deck A: RV11A (L-CH), RV21A (R-CH), deck B: RV11B (L-CH), RV21B (R-CH) so that the output level is within the adjustment values specified.

Adjustment Level:

CN901 level: $-7.5 \text{ dB} \pm 0.5 \text{ dB}$ (0.31 to 0.35V)

Level Difference between Channels:

Within 1.0 dB

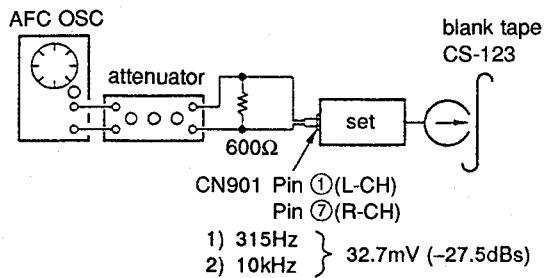
Check that the playback level does not change when playback and stop is repeated.

Adjustment Location: MD-A, B boards

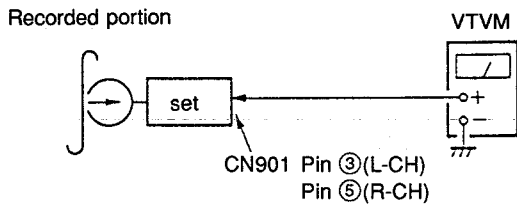
【Record Bias Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV12 (L-CH) and RV22 (R-CH), and repeat steps 1 and 2.

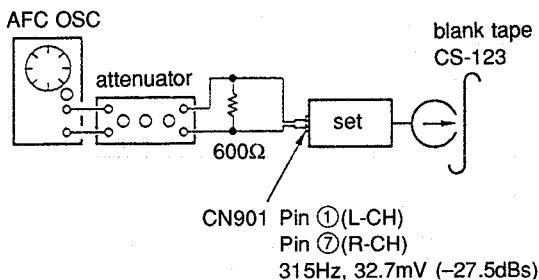
Adjustment Level: Playback output of 315 Hz to playback output of 10 kHz: -0.5 dBs to 0.5 dBs.

Adjustment Location: MD-B board

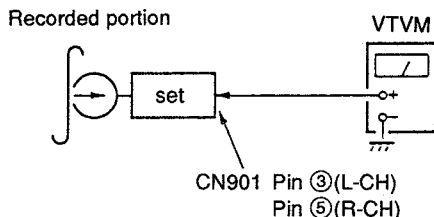
【Record Level Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV701 (L-CH) and RV801 (R-CH), and steps 1 and 2.

Adjustment Level:

CN901 level: -27.0 dBs to -28.0 dBs (31 to 35 mV)

Adjustment Location: Main board

Adjustment Location:

【MD-A BOARD】 (Component Side)

Tape Speed Adjustment

{ RV72A (H)
RV71A (L)

Playback Level Adjustment

{ RV21A (R-CH)
RV11A (L-CH)

Record Bias Adjustment 【MD-B BOARD】 (Component Side)

{ RV12 (L-CH)
RV22 (R-CH)

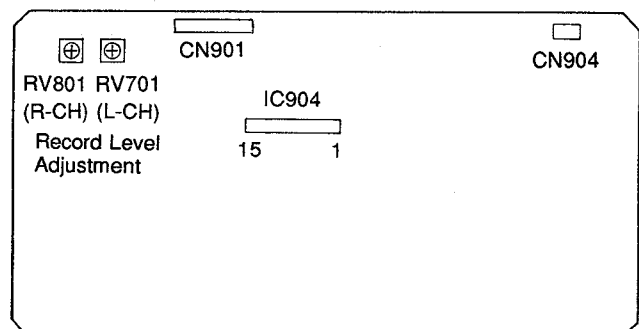
Tape Speed Adjustment

{ RV72B (H)
RV71B (L)

Playback Level Adjustment

{ RV21B (R-CH)
RV11B (L-CH)

【MAIN TC BOARD】 (Component Side)

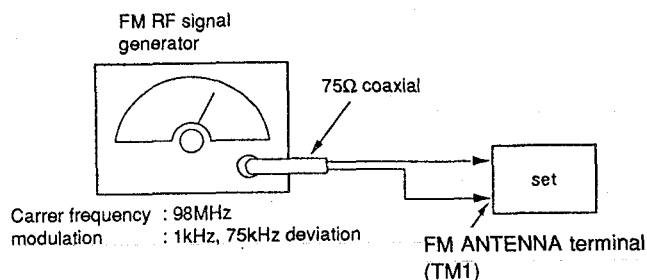


TUNER SECTION

Note : As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

FM SECTION ADJUSTMENTS

Setting:



FM Tuned Level Adjustment

Band : FM

Procedure :

1. Supply a $25 \pm 4\text{dB}\mu$ (EE, CIS), $30 \pm 4\text{dB}\mu$ (EXCEPT EE, CIS) 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS) signal from the ANTENNA terminal.
2. Tune the set to 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS).
3. Adjust RV2 so that the TUNED indicator goes on.

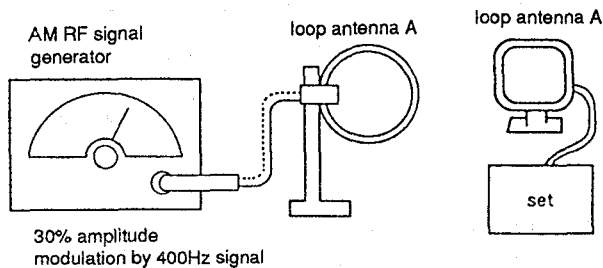
Adjustment Location: MAIN board

EE : East European model

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

AM SECTION ADJUSTMENTS

Setting:



AM Tuned Level Adjustment

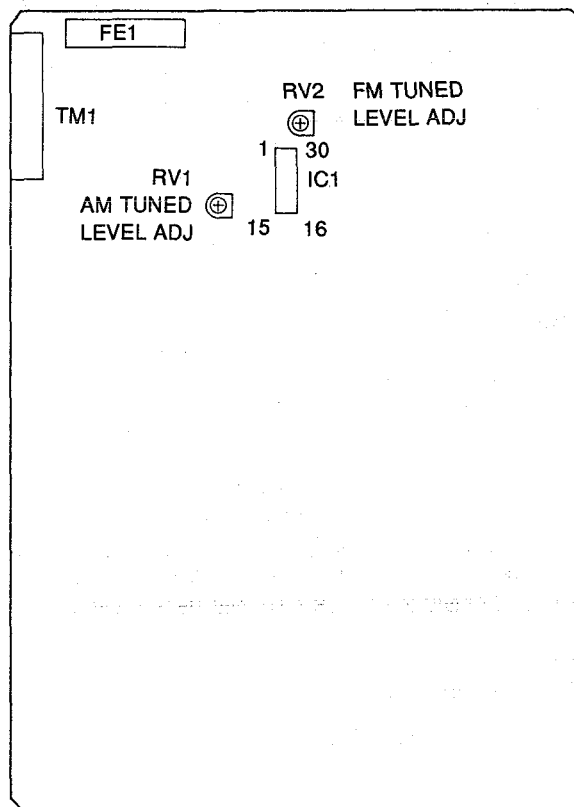
Band: AM

Procedure:

1. Set loop antenna input level to $94\text{dB}\mu/\text{m}$, 1050kHz and no signal tuned light should not on.
2. Tune the set to 1050kHz
3. Adjust RV1 so that the Voltage of IC1 ⑦ pin is set to low.

Adjustment Location : MAIN BOARD

[MAIN BOARD] (Component Side)



SUBCARRIER ADJUSTMENT (CIS Model only)

SWITCH POSITION		Function Selector : TUNER Band Selector : FM STEREO/MONO : MONO			
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
STEP	TEST STAGE	FM TUNING FREQUENCY	SIGNAL GENERATOR	ADJUSTMENT	REMARKS
1	fo	69 MHz	1 kHz (10 kHz dev.)		The value in this state should be 0 dB (Vo).
2			31.25 kHz (10 kHz dev.)	L1701	Adjust for maximal output.
3	Q			RV1701	Indication is +14 dB against Vo.

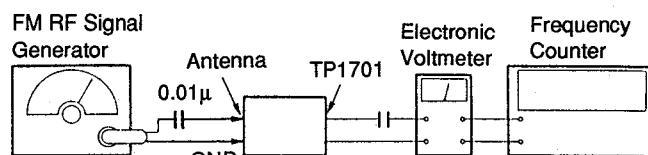


Fig. 1 SUBCARRIER

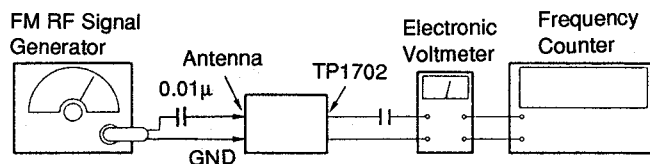
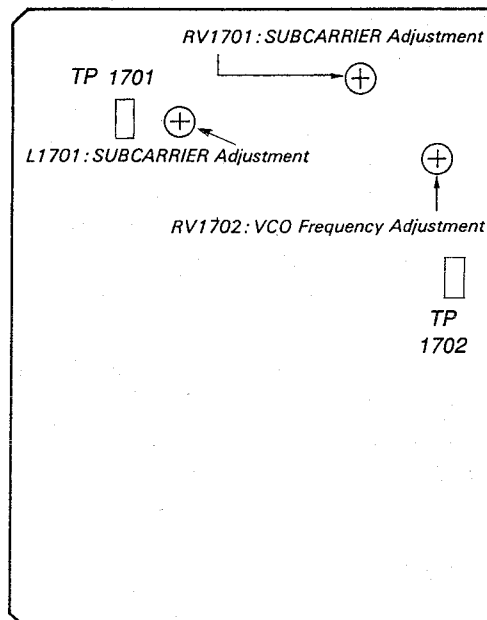


Fig. 2 VCO FREQUENCY

VCO FREQUENCY ADJUSTMENT

SWITCH POSITION		STEREO/MONO : STEREO		
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)		
	FM TUNING FREQUENCY	ADJUSTMENT	REMARKS	
	69 MHz	RV1702	Adjust for 31.25kHz ± 50 Hz.	

[POLAR BOARD] (Component Side)



CD SECTION

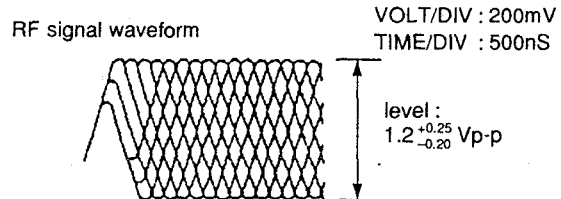
Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

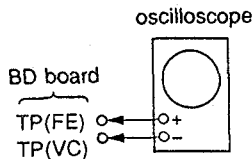
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

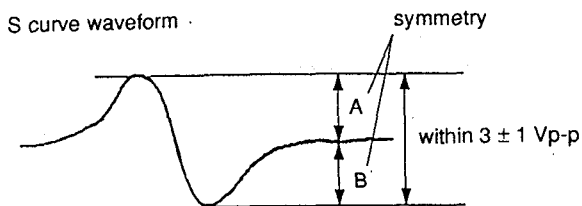


S Curve Check



Procedure :

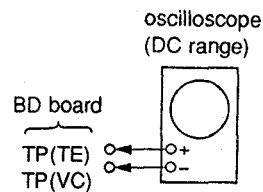
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.



6. After check, remove the lead wire connected in step 2.

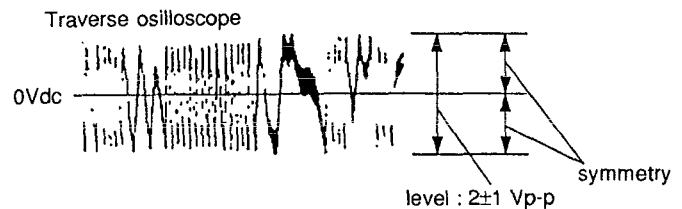
Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

E-F Balance Check



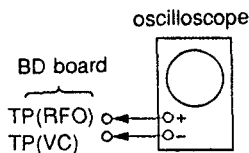
Procedure :

1. Connect test point TP (ADJ) on MAIN board to ground and TP(TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.



6. Remove the lead wire connected in step 1.

RF Level Check



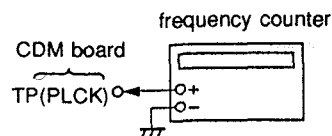
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.

RF Free-run Frequency Check

Procedure :

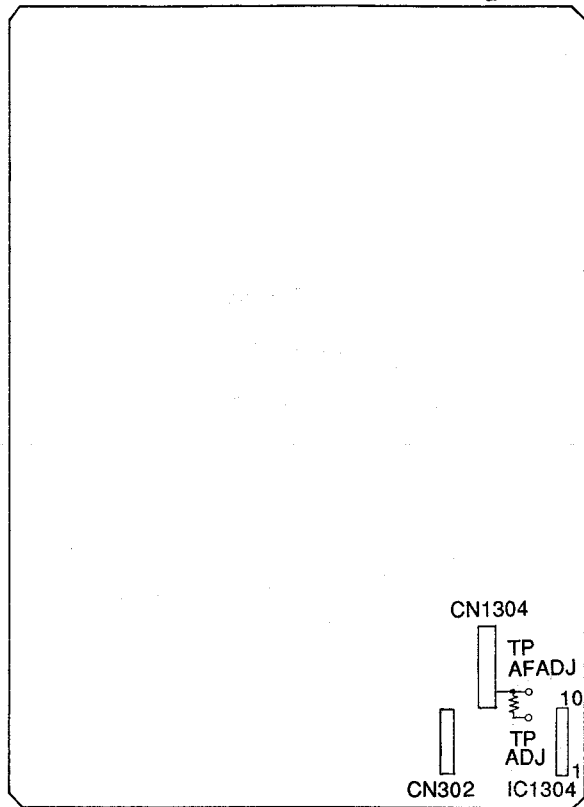
1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turned Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

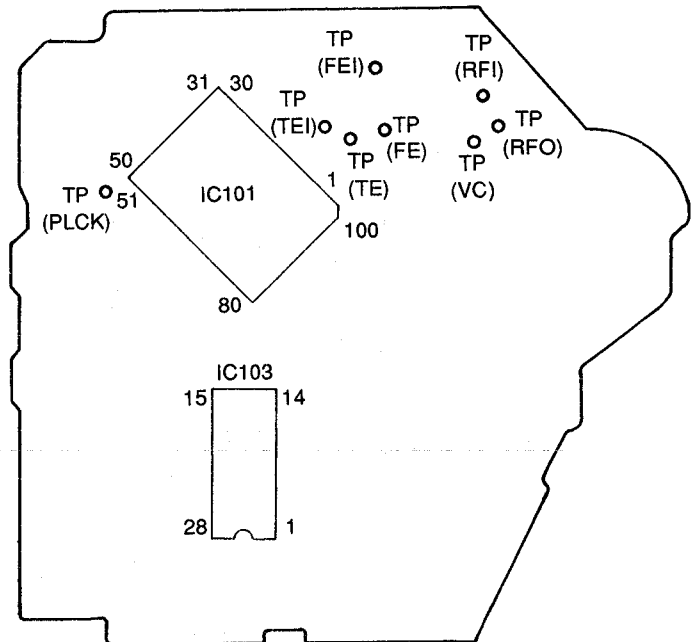
Adjustment Location :

[MAIN BOARD] (Component Side)



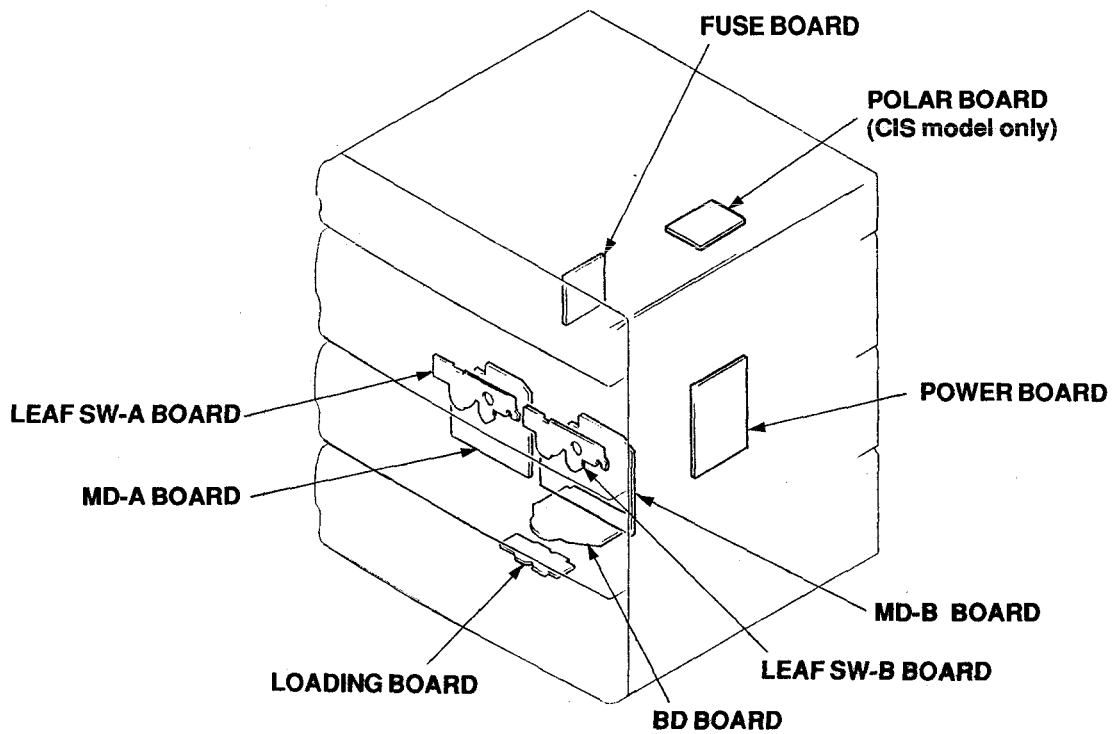
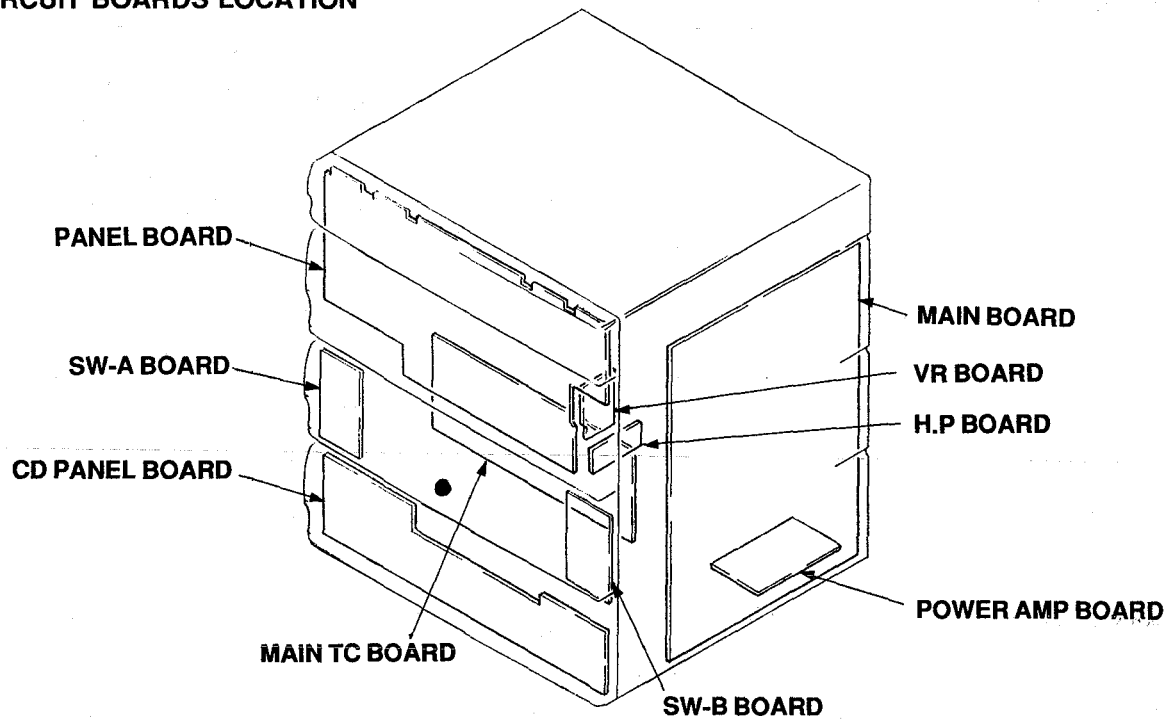
Adjustment Location :

[BD BOARD] — Side A —

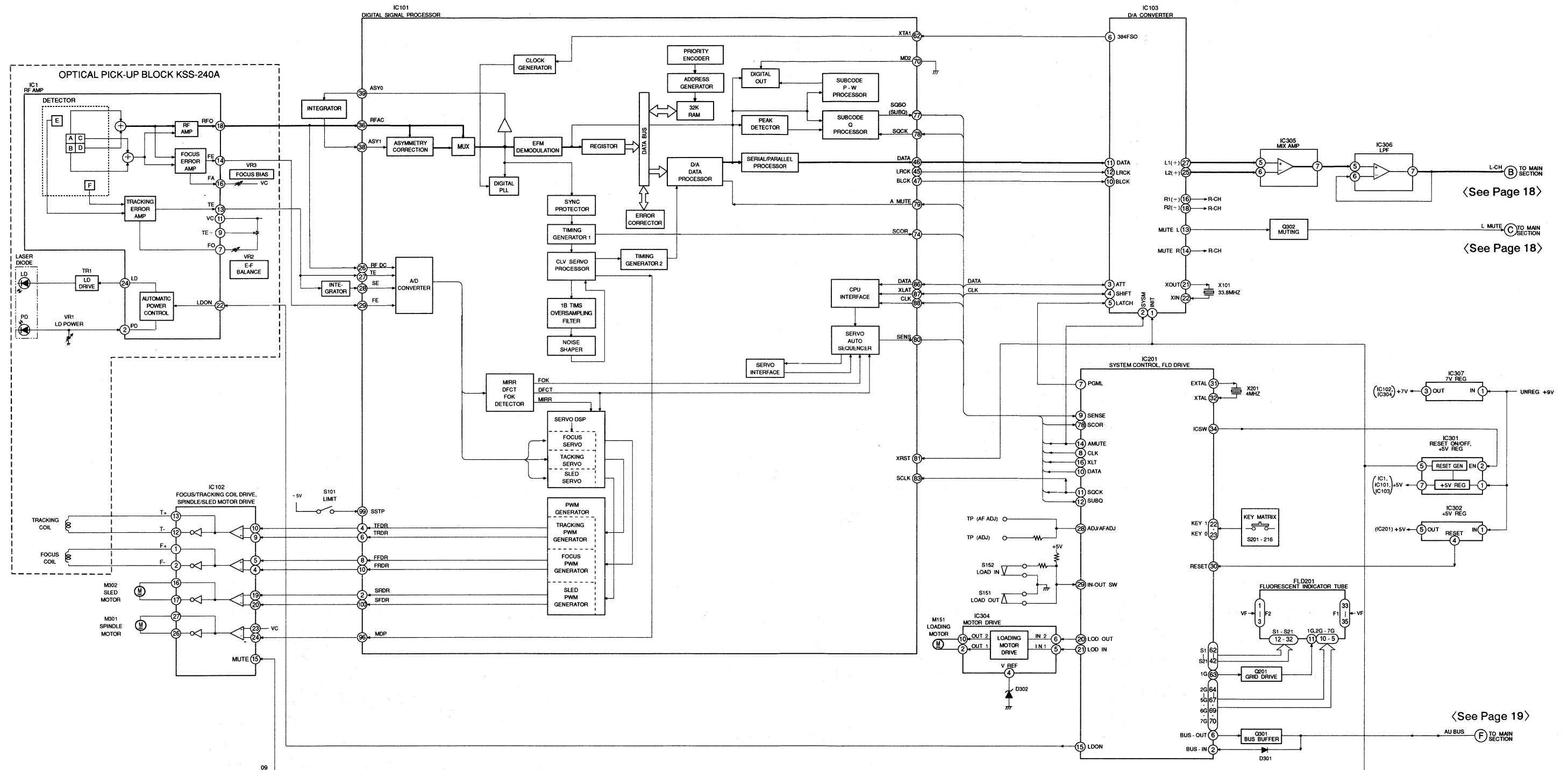


SECTION 5 DIAGRAMS

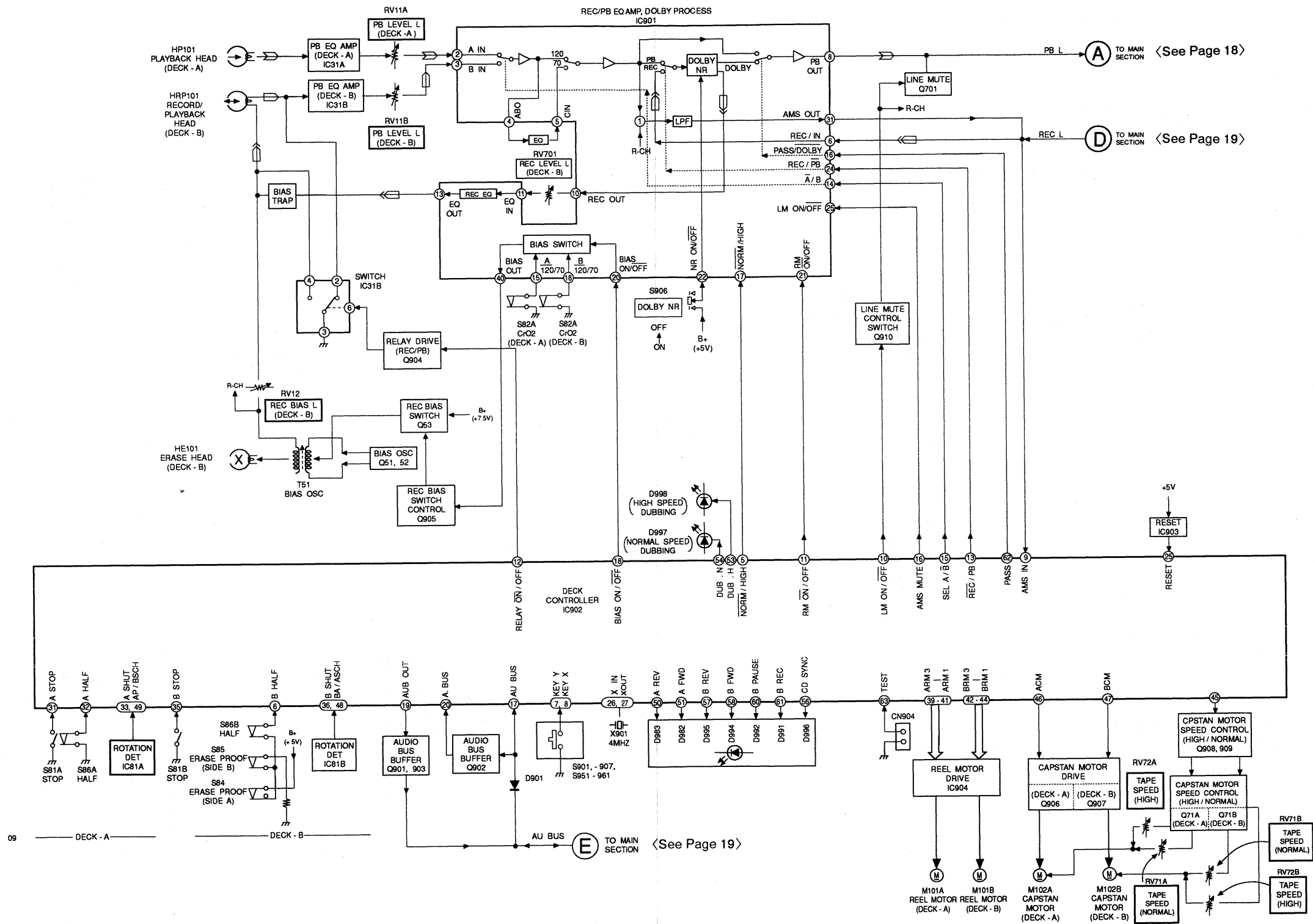
5-1. CIRCUIT BOARDS LOCATION



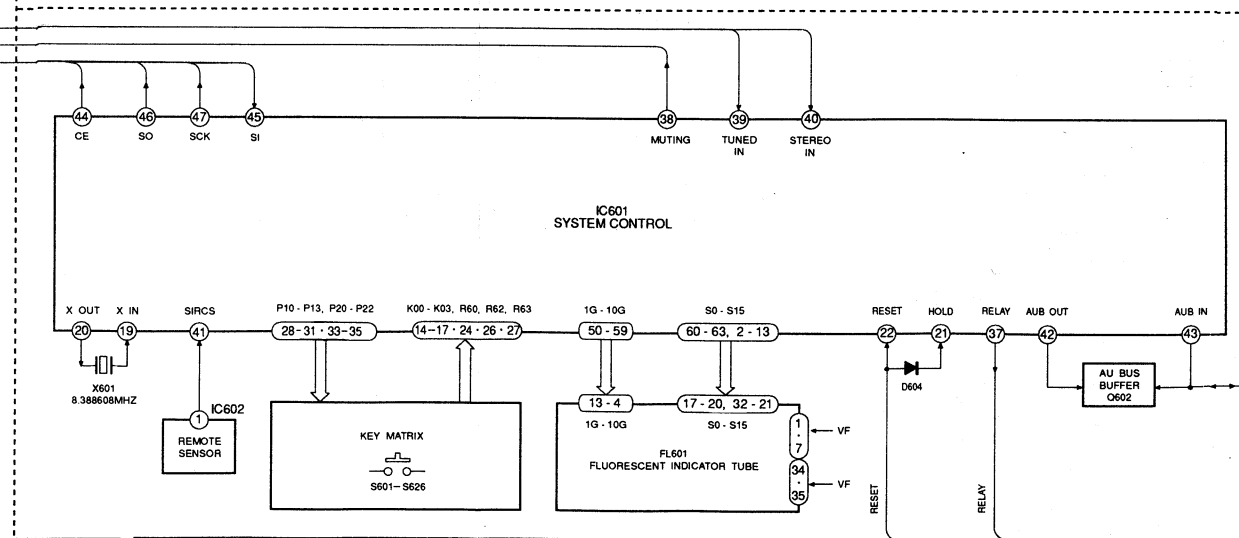
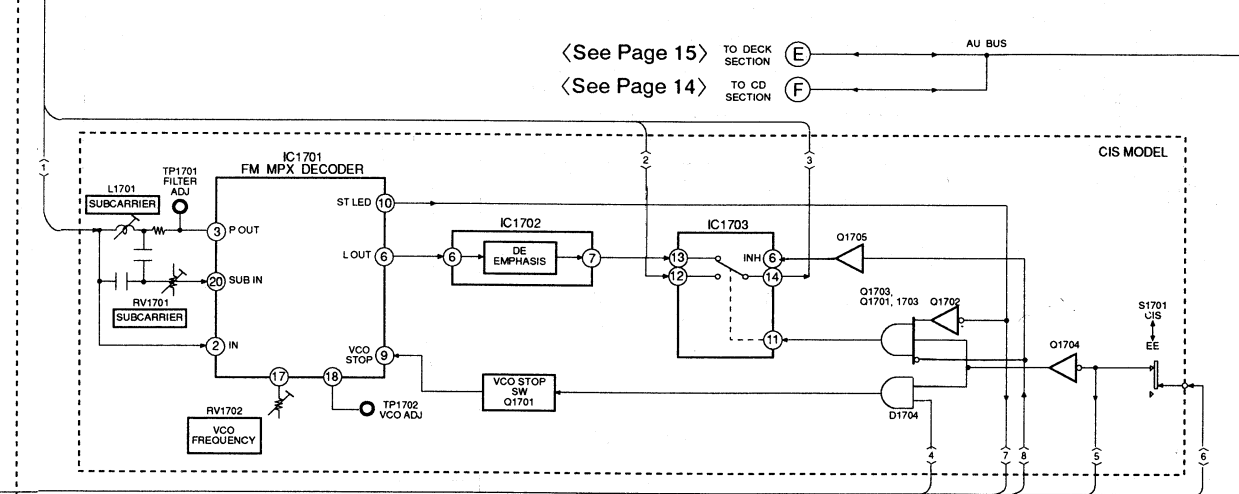
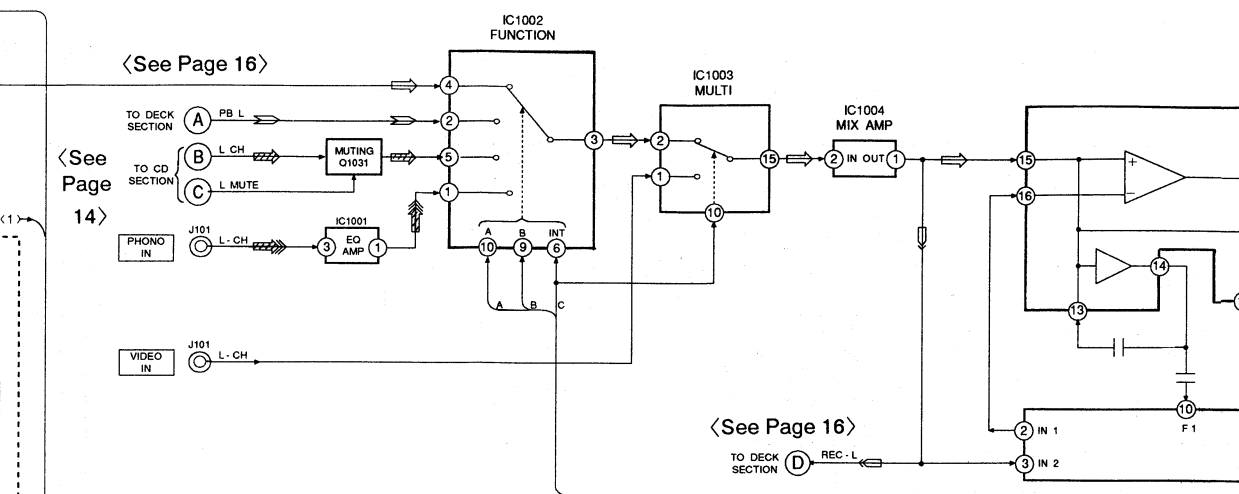
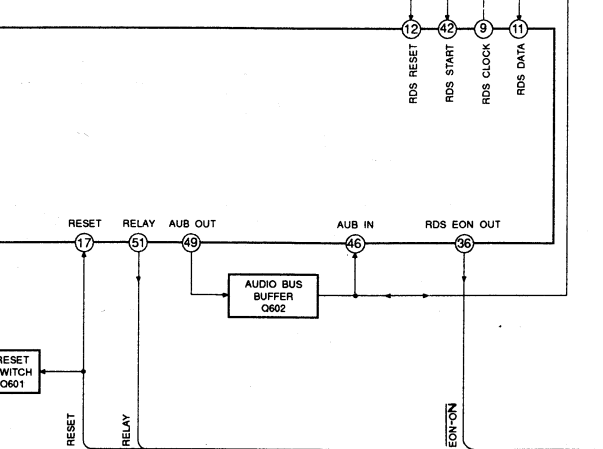
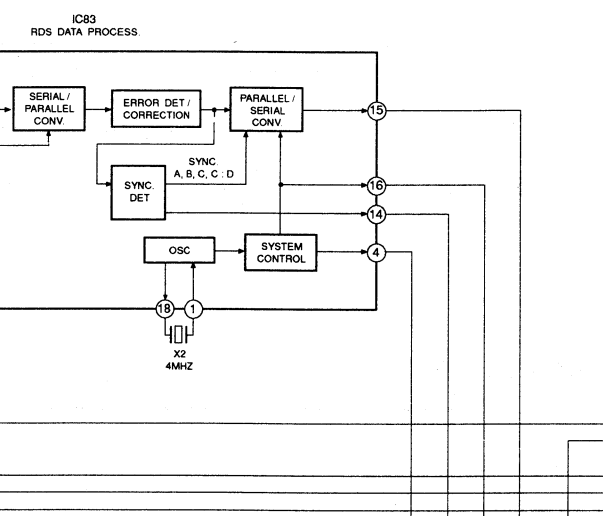
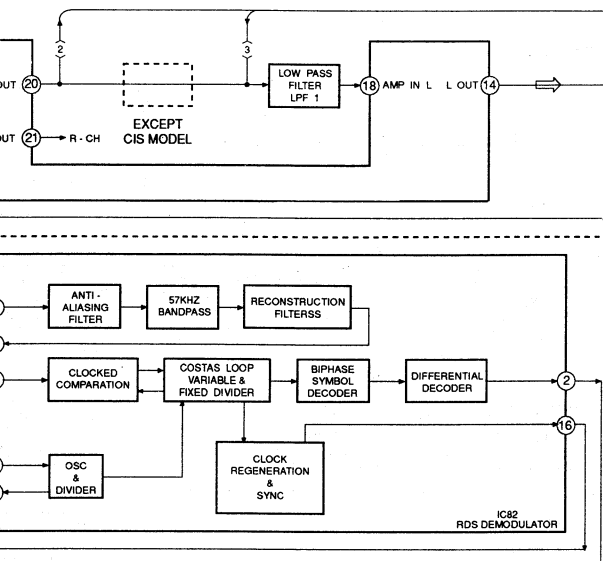
5-2. BLOCK DIAGRAMS — CD SECTION —



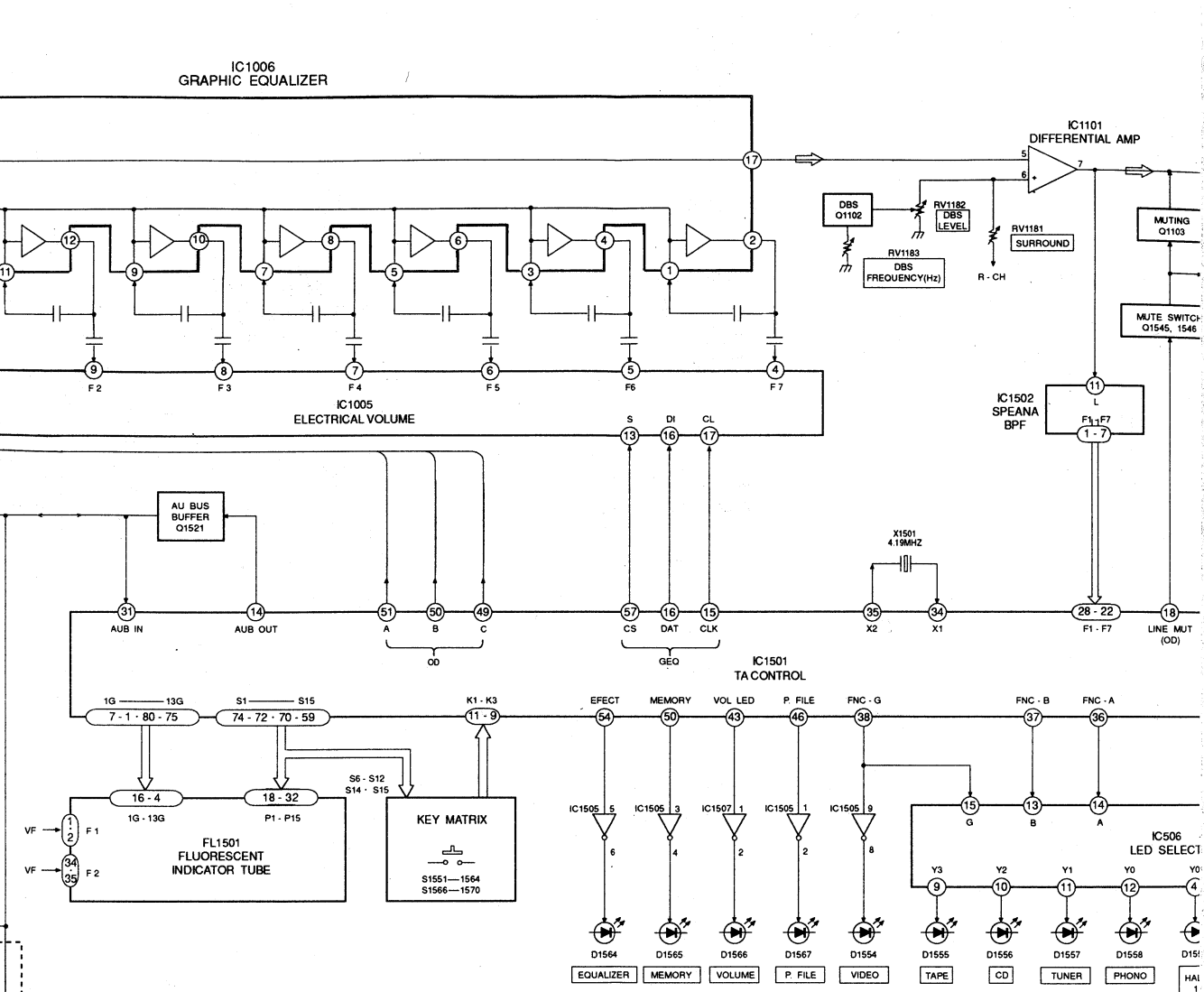
— DECK SECTION —

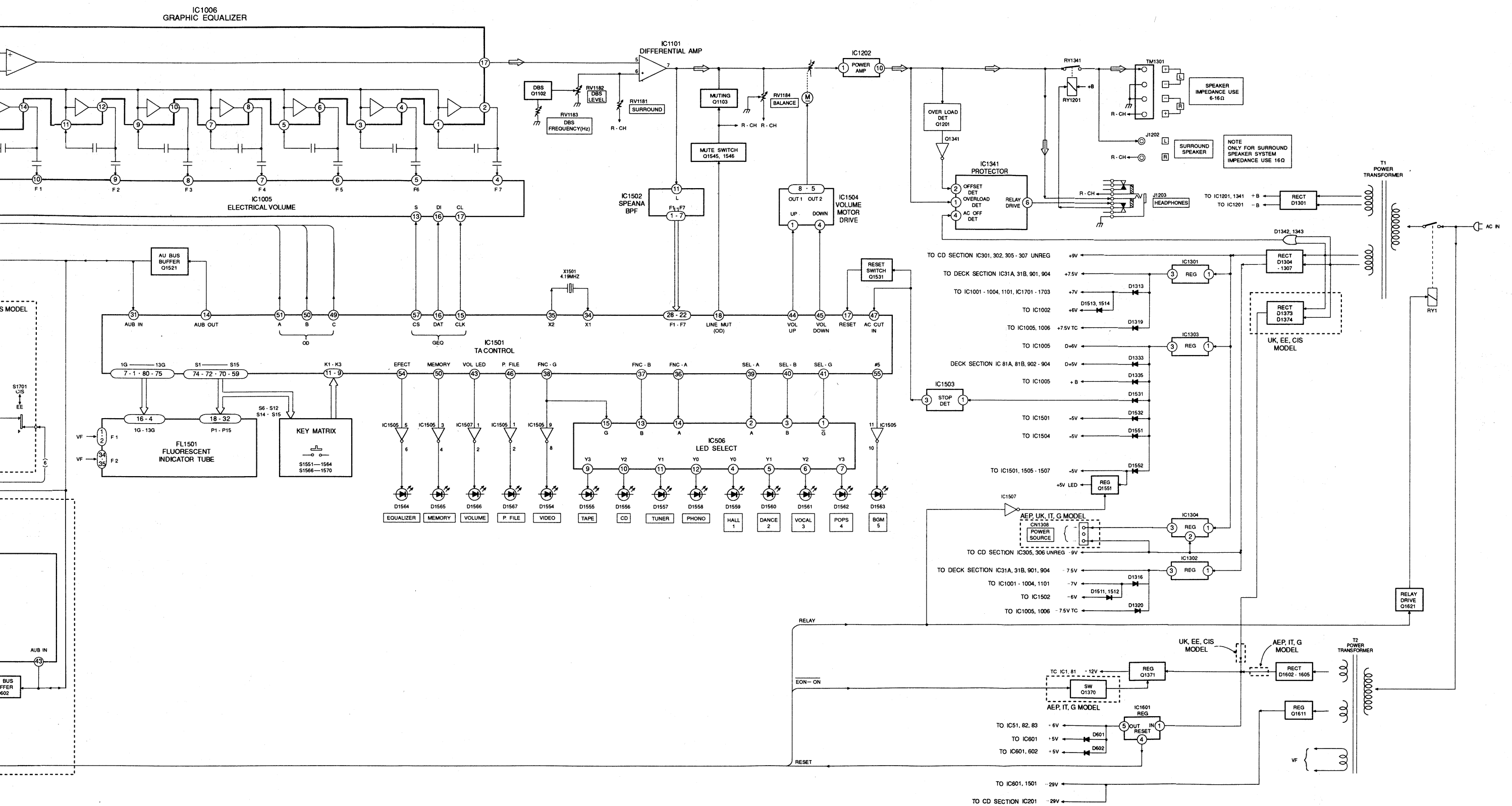






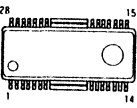
UK, EE, CIS MODEL



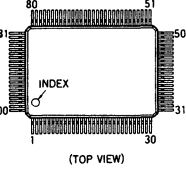


5-3. SEMICONDUCTOR LEAD LAYOUTS

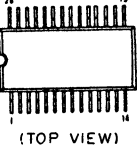
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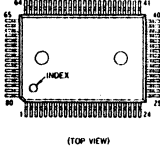
CXD2515Q



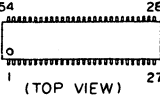
CXD2565AM



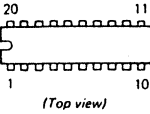
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uPD78042GF056-3B9
uPD78043GF-079-3B9



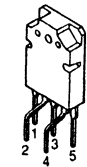
HA12171NT
M5289P



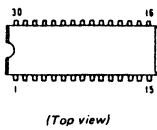
IR3R42



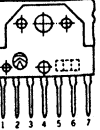
L78MR06
L78LR05D



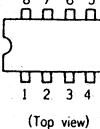
LA1835



LA5602



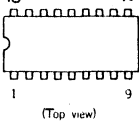
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M5218AP
UPC4558C



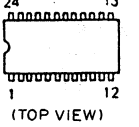
LB1641
UPC1237HA



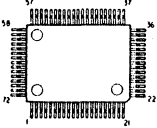
LC7073



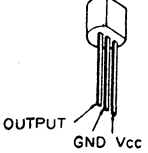
LC7218



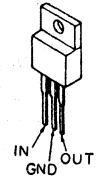
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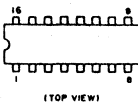
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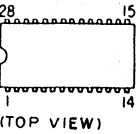
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M5F78M07L
M5F78M12
M5F79M07L



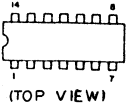
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SAA6579
SN74HC139AN
UPD4053BC
XR1091DCP



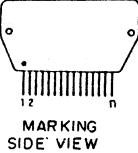
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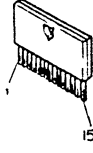
SN74HCU04AN



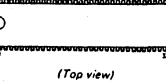
STK-4152MK2K
STK-4162MK2



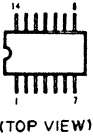
TA8242K



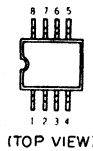
TMP47C1270AN-H227



uPC1330GR



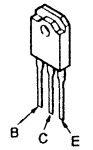
UPC4570G2



DTA144ES
DTA124ES
DTC144ES
DTC124ES
2SC2603-EF
2SC26690Y
2SC3622A-LK
2SC403SP-51



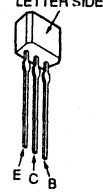
DTC114ES



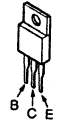
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2SB1068-L
2SC1841-PAFAEA
2SC3112-B



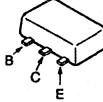
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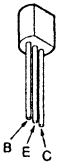
2SB1094-LK
2SD2012



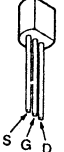
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2SD1616A-K



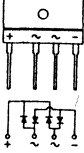
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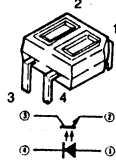
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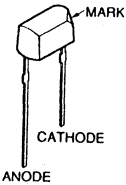
D5SBA20F01



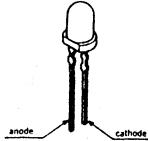
NJL5165K-B (H1)



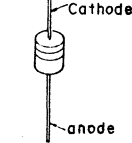
SEL5221S-TH8C
SEL5421E-TH8C



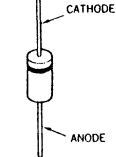
SEL5421E-TH8C
SEL5821A-TH8C



UZ-4.7BSB
UZL-11M1
UZL-33L
UZP-5.6B



1N4148M
11EQS04
11ES2

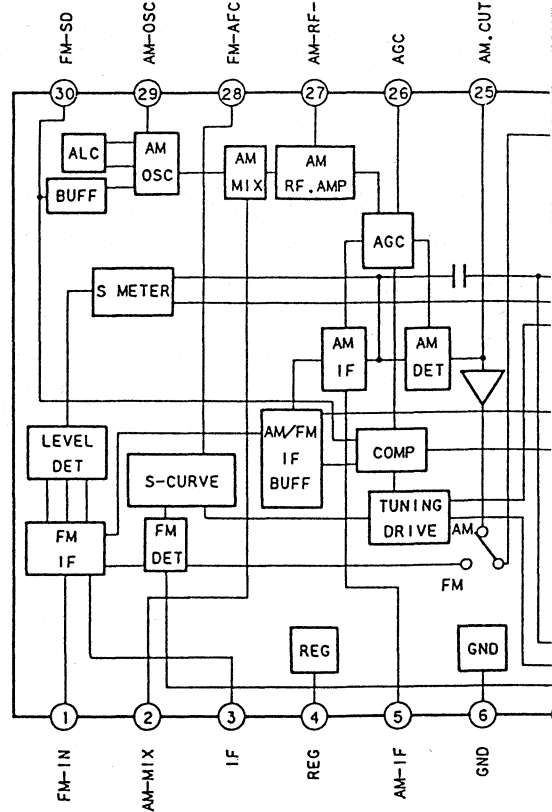


5-4. IC BLOCK DIAGRAMS

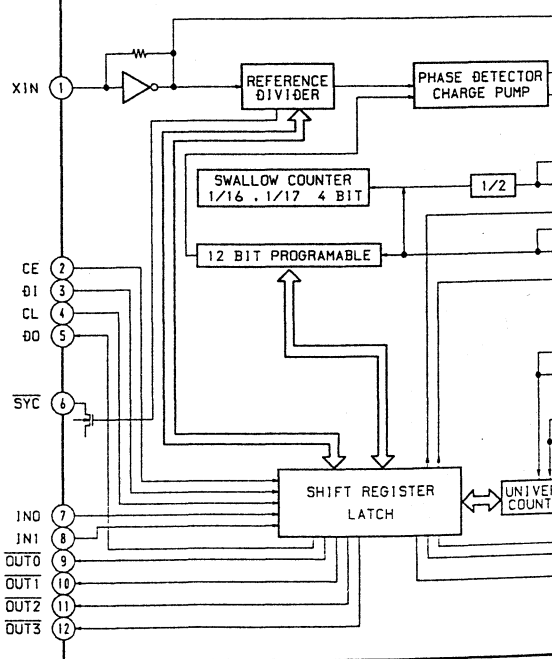
— TUNER SECTION —

• IC Block Diagrams.

IC1 LA1835



IC51 LC7218

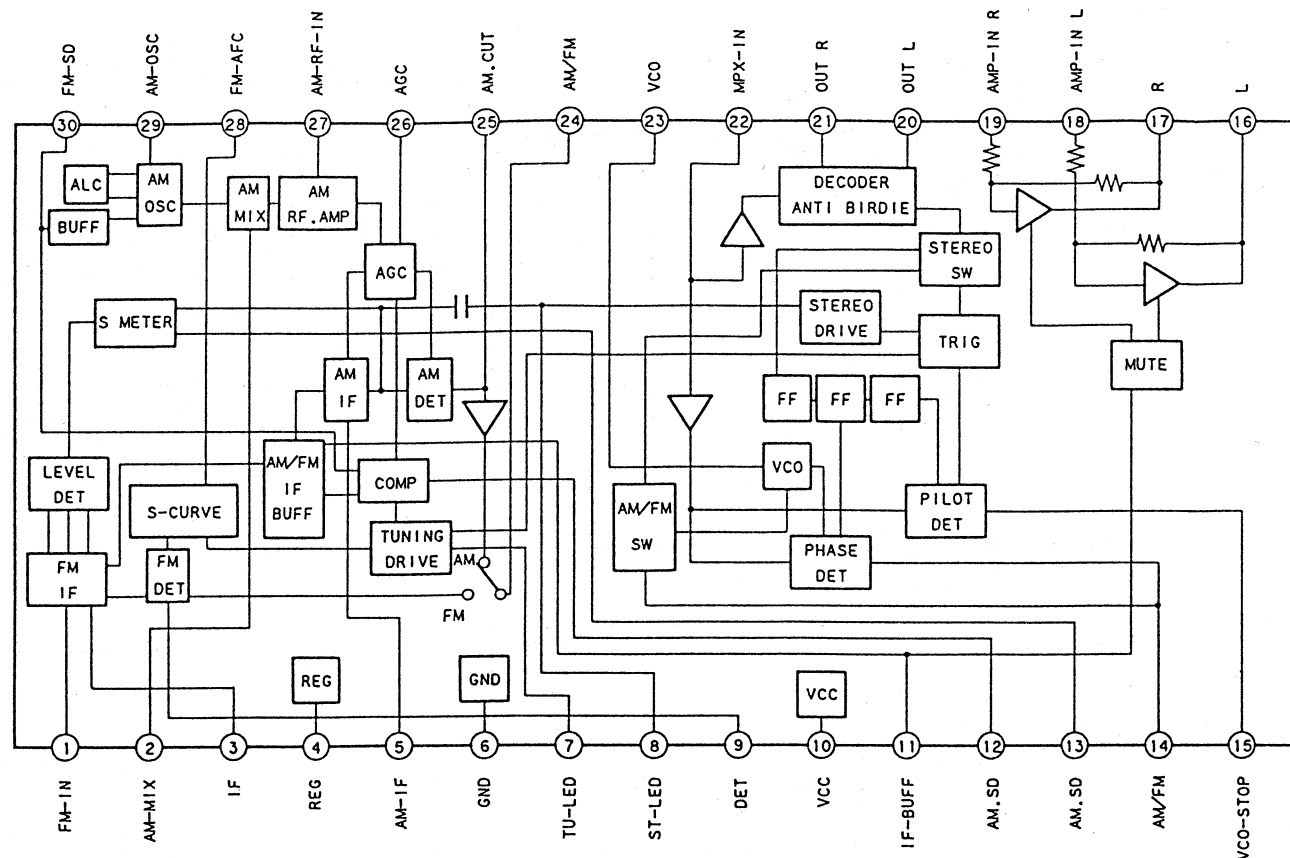


5-4. IC BLOCK DIAGRAMS

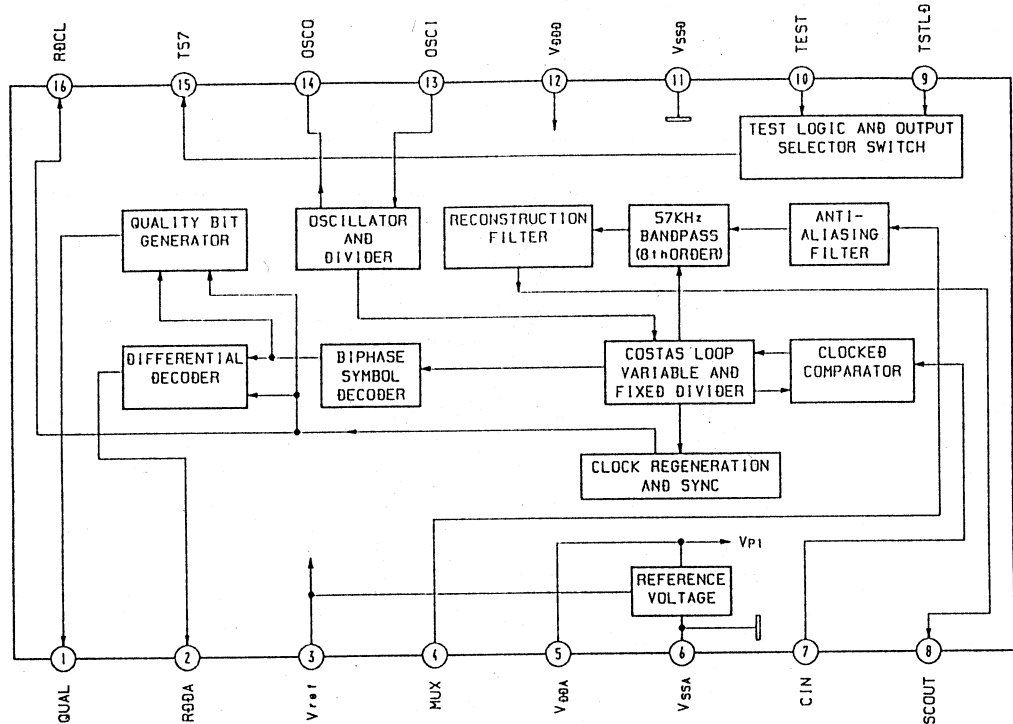
— TUNER SECTION —

• IC Block Diagrams.

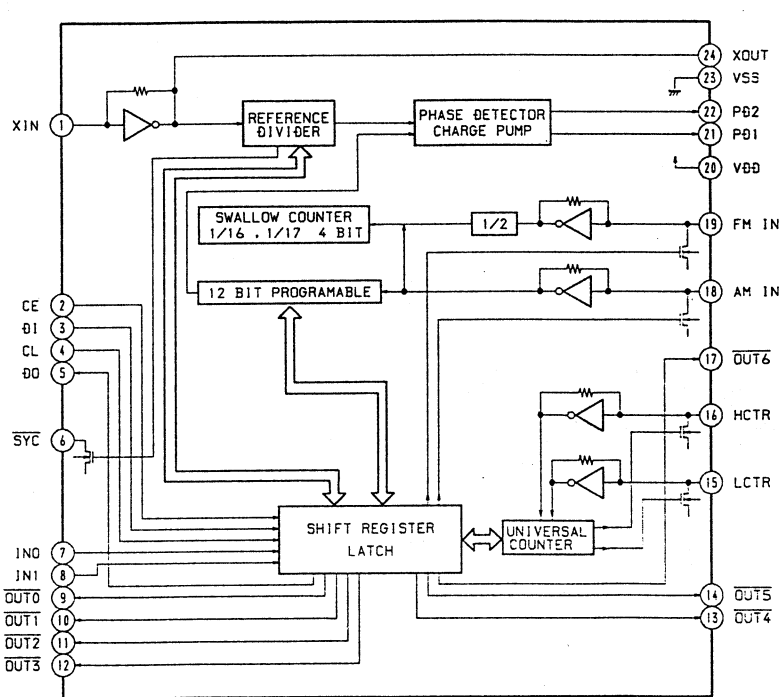
IC1 LA1835



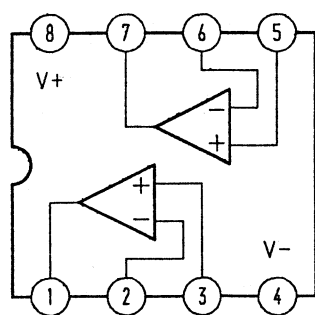
IC82 SAA6579



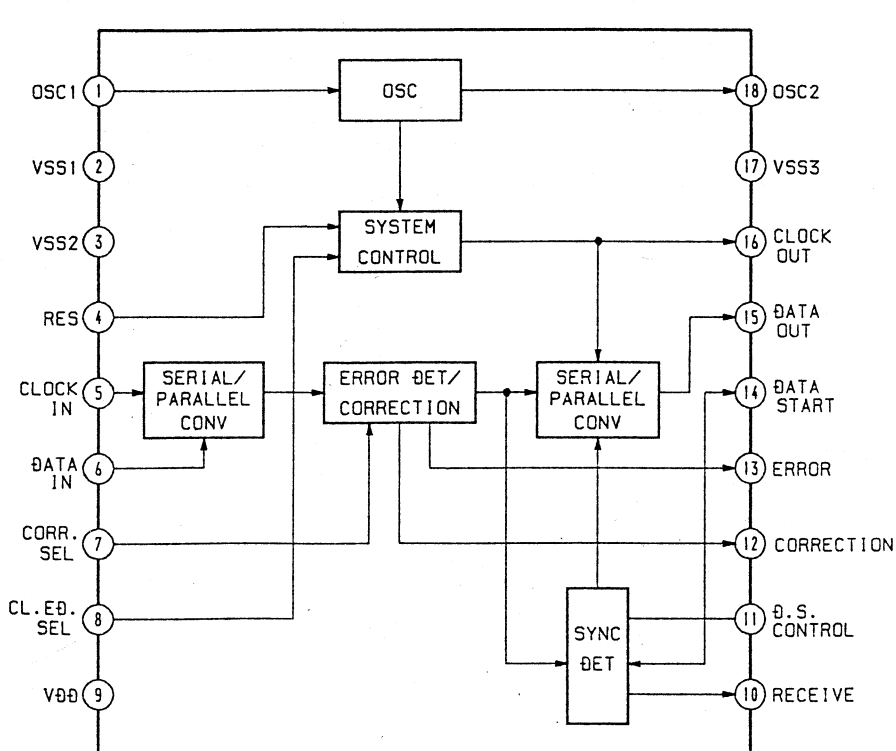
IC51 LC7218

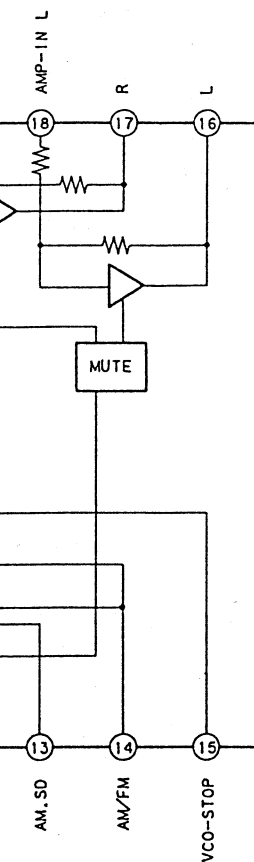


IC81 RC4558P

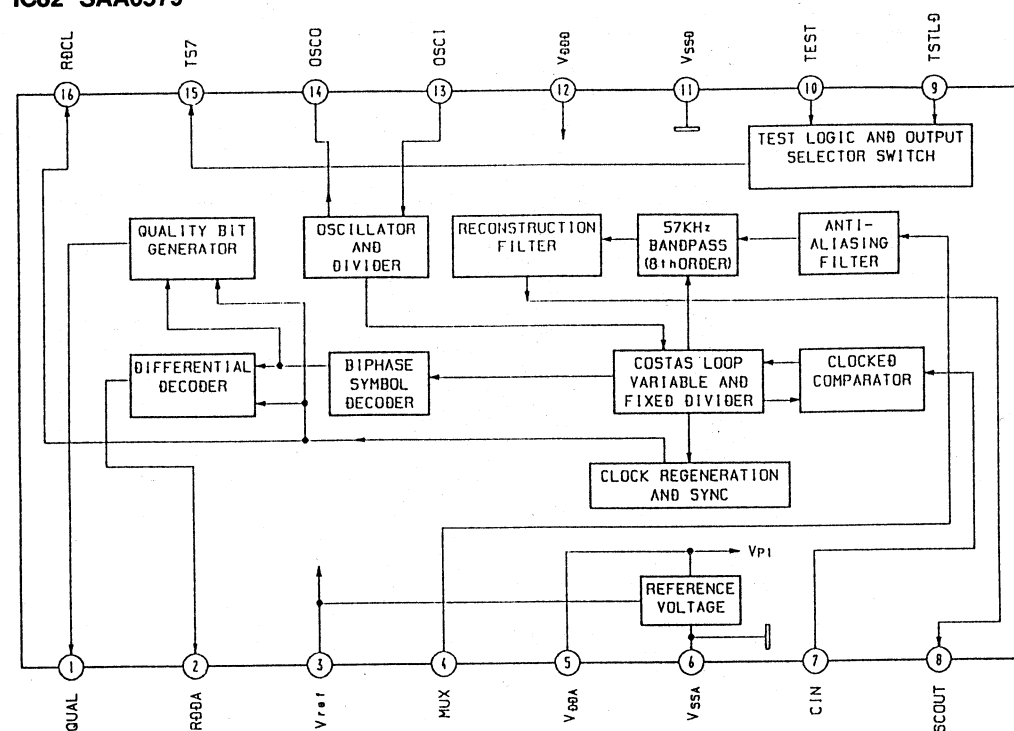


IC83 LC7073

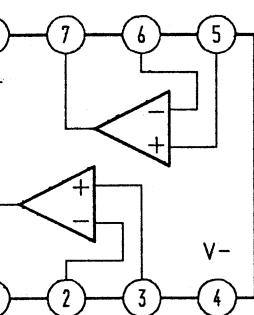




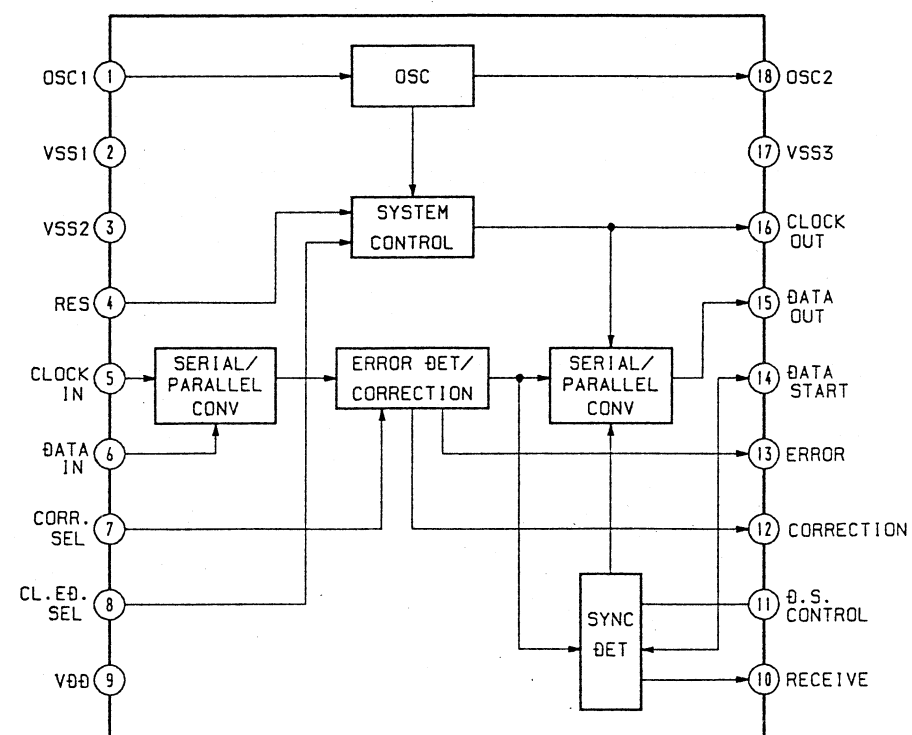
IC82 SAA6579



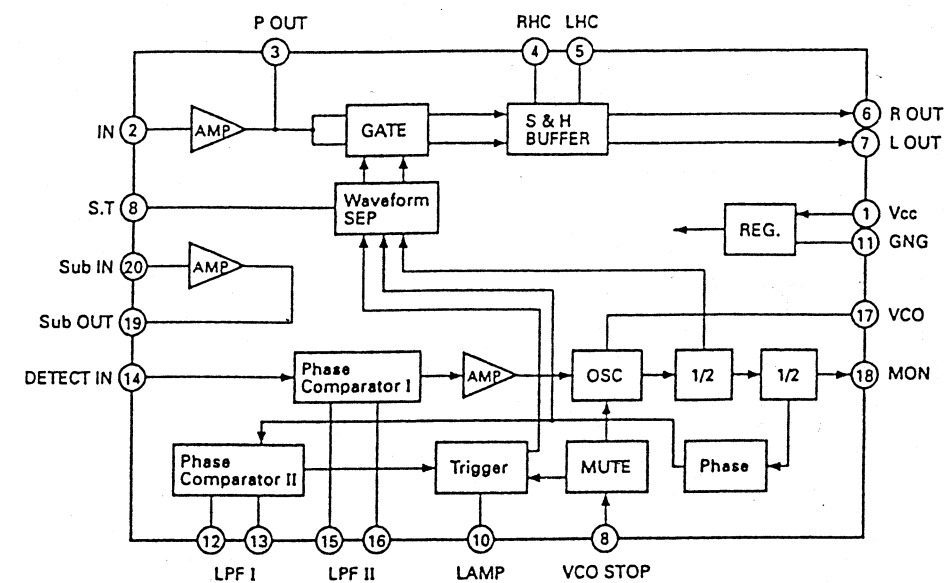
RC4558P



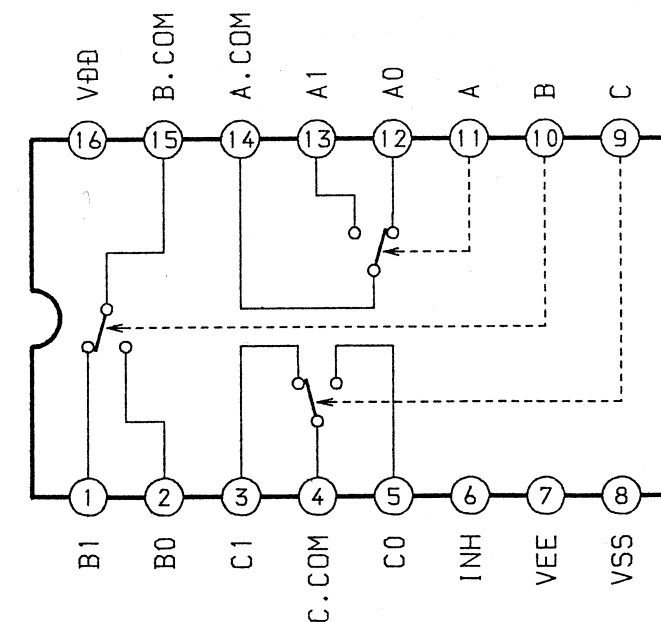
IC83 LC7073



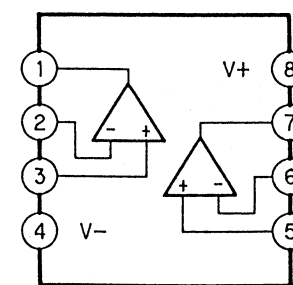
IC1701 IR3R42



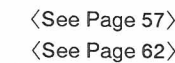
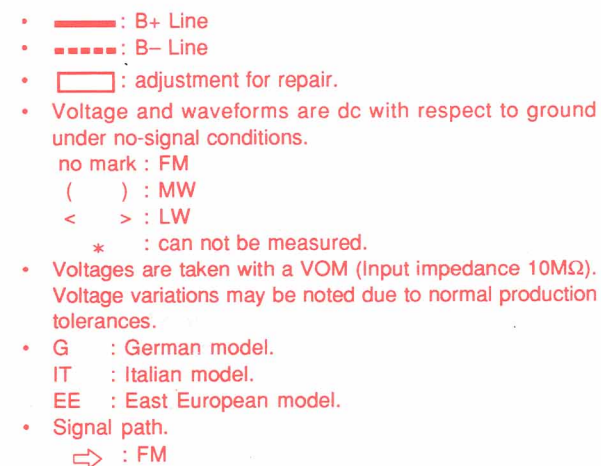
IC1703 MC14053BCP

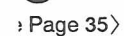


IC1702 M5218AP



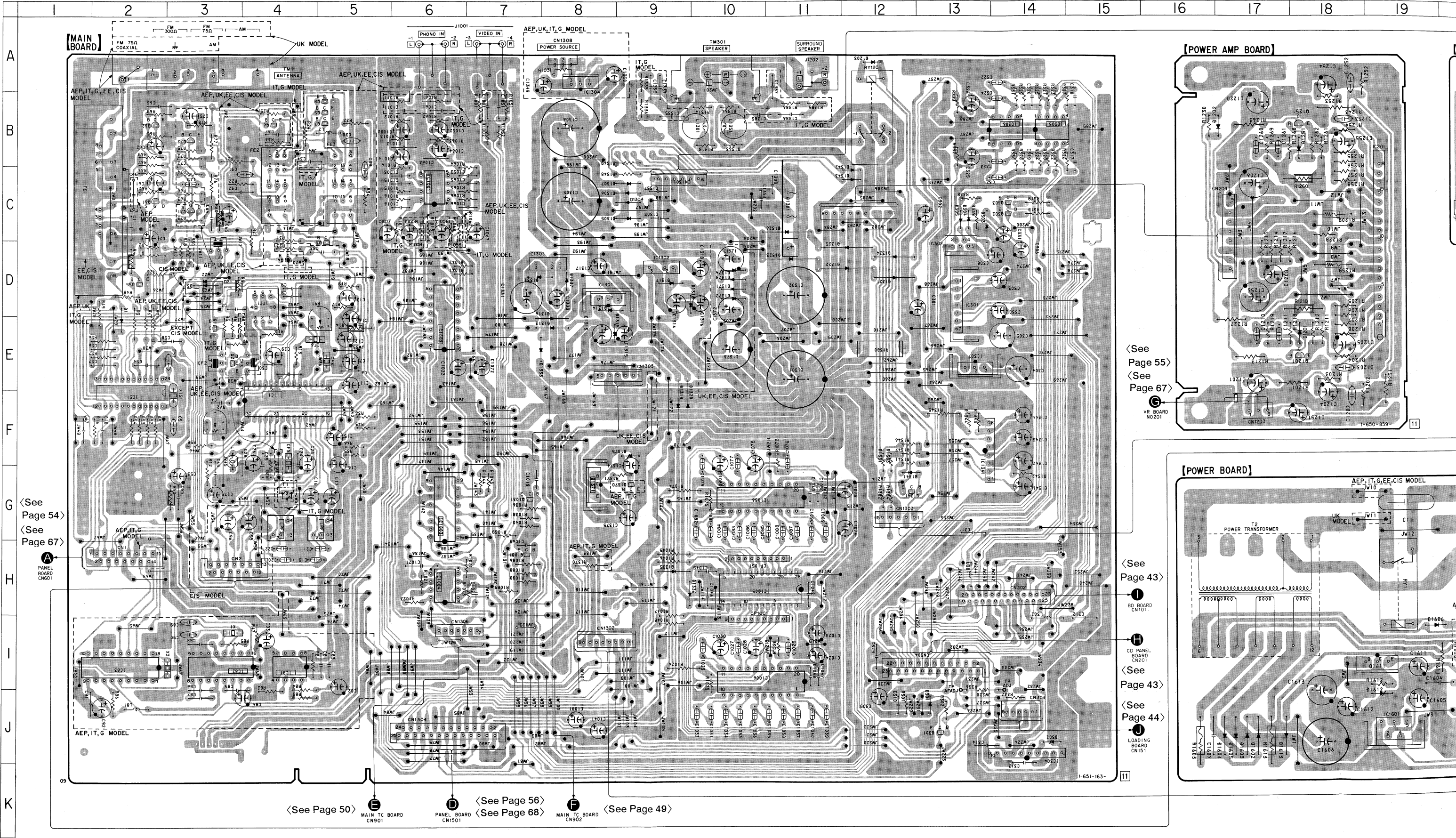
- Refer to page 31 for Printed Wiring Boards.
- See page 24 for IC Block Diagrams.

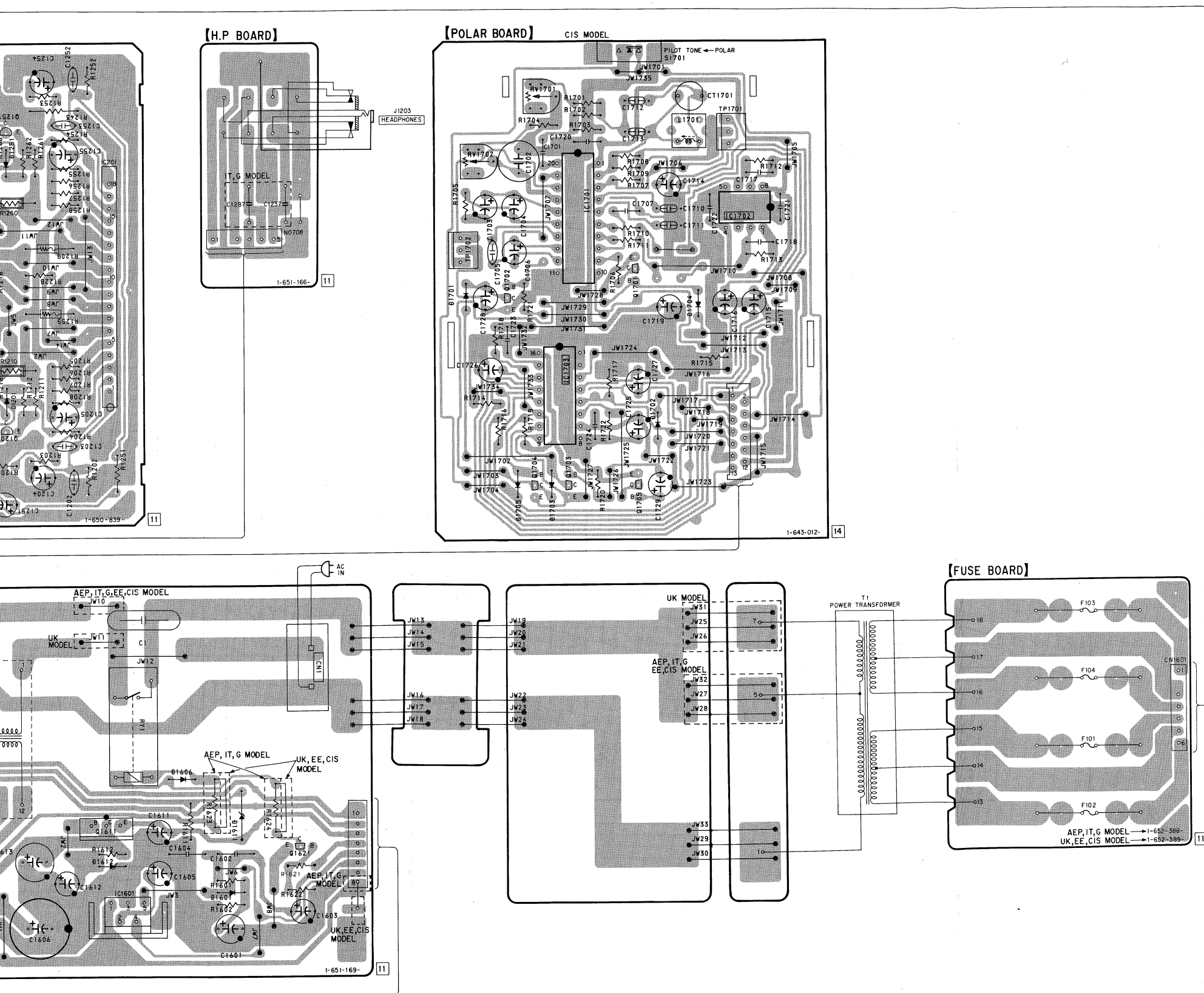




5-6. PRINTED WIRING BOARDS — MAIN SECTION —

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.





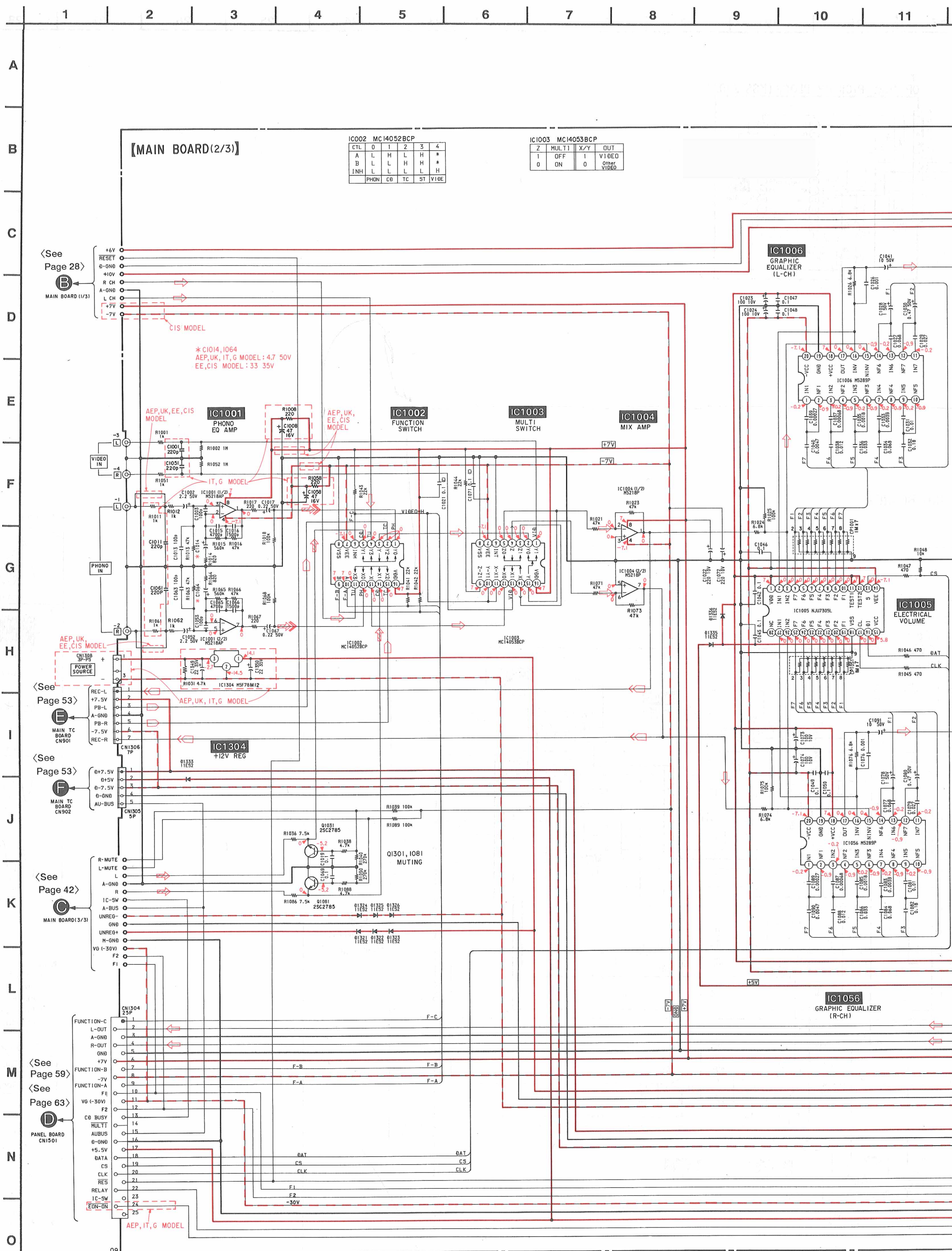
• Semiconductor Location

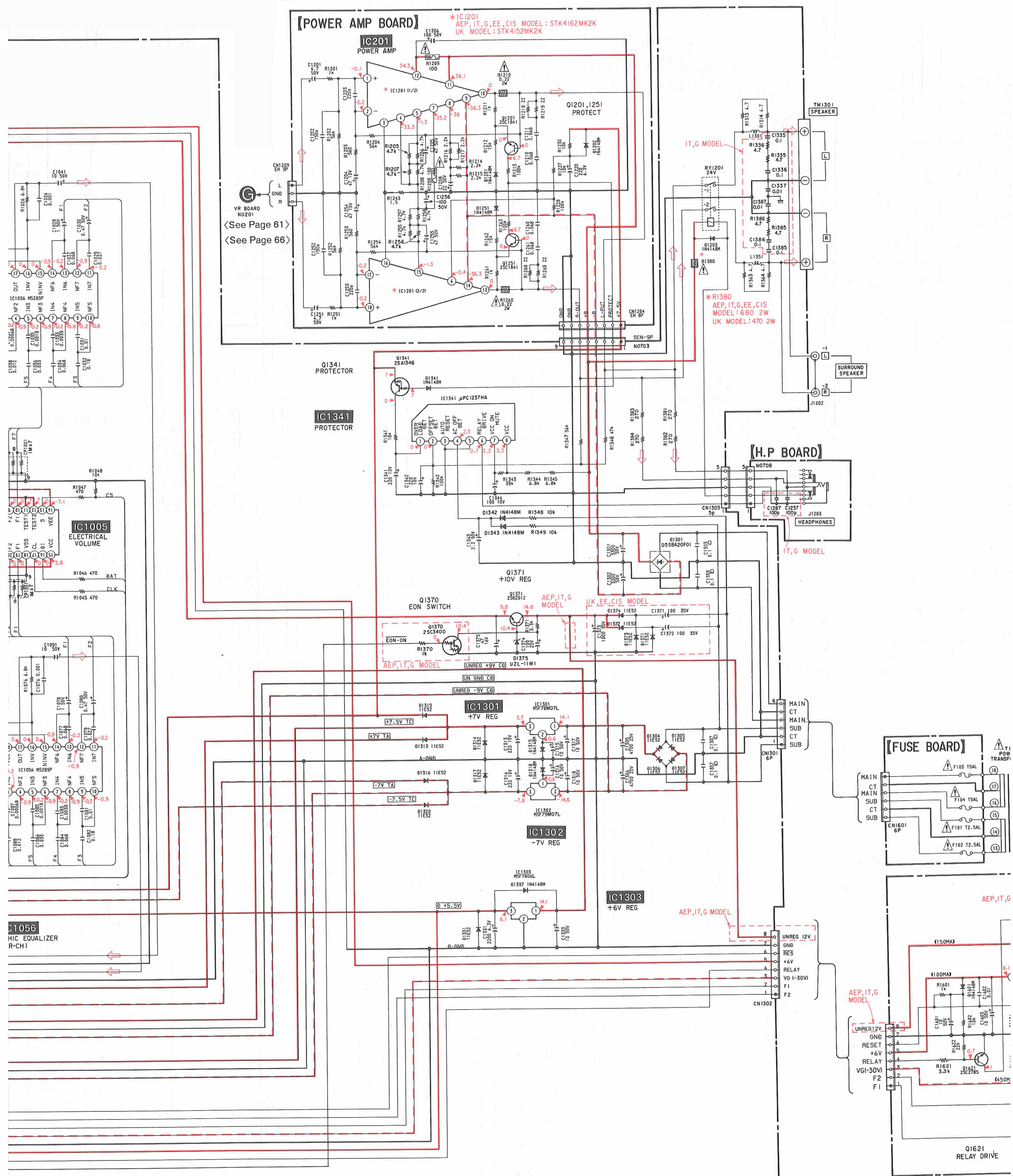
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	D-2	D1375	F-8	IC1703	D-23
D2	D-3	D1601	J-20	Q1	E-3
D3	D-3	D1602	J-17	Q2	E-3
D301	J-13	D1603	J-17	Q3	C-4
D302	J-14	D1604	J-16	Q4	D-4
D303	C-13	D1605	J-17	Q5	B-4
D304	C-13	D1606	I-19	Q6	B-4
D305	C-13	D1611	I-20	Q7	B-4
D1201	E-18	D1612	J-19	Q8	B-4
D1202	B-16	D1613	J-17	Q55	D-2
D1203	A-12	D1701	D-22	Q61	C-2
D1251	B-18	D1702	E-24	Q62	B-2
D1301	C-11	D1703	F-23	Q71	C-3
D1304	C-9	D1704	D-25	Q72	B-3
D1305	C-8	D1705	F-23	Q301	J-13
D1306	C-8			Q302	C-14
D1307	C-8	IC1	F-4	Q303	C-14
D1313	E-7	IC51	F-2	Q1031	G-7
D1314	D-8	IC81	I-4	Q1081	H-7
D1315	E-8	IC82	I-3	Q1201	E-18
D1316	D-7	IC83	I-2	Q1251	B-18
D1317	D-9	IC301	E-13	Q1341	G-12
D1318	D-9	IC302	D-13	Q1370	G-8
D1319	F-9	IC304	J-14	Q1371	G-8
D1320	F-9	IC305	B-14	Q1611	I-19
D1321	D-12	IC306	B-14	Q1621	J-21
D1322	D-11	IC307	E-13	Q1701	D-24
D1323	C-11	IC1001	C-6	Q1702	D-23
D1324	D-12	IC1002	E-6	Q1703	E-23
D1325	D-11	IC1003	G-6	Q1704	E-23
D1326	C-11	IC1004	H-6	Q1705	F-24
D1331	D-7	IC1005	H-10		
D1333	E-7	IC1006	I-10		
D1335	H-9	IC1056	G-10		
D1336	H-9	IC1201	B-19		
D1337	D-8	IC1301	D-8		
D1341	G-12	IC1302	D-9		
D1342	C-12	IC1303	D-7		
D1343	C-12	IC1304	A-8		
D1371	D-10	IC1341	G-13		
D1372	D-10	IC1601	J-19		
D1373	D-10	IC1701	C-24		
D1374	D-10	IC1702	C-25		

Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- G : German model.
- IT : Italian model.
- EE : East European model.

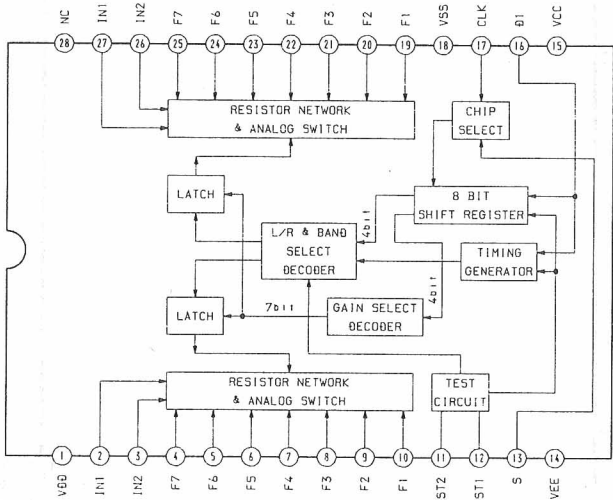
5-7. SCHEMATIC DIAGRAM — MAIN SECTION —



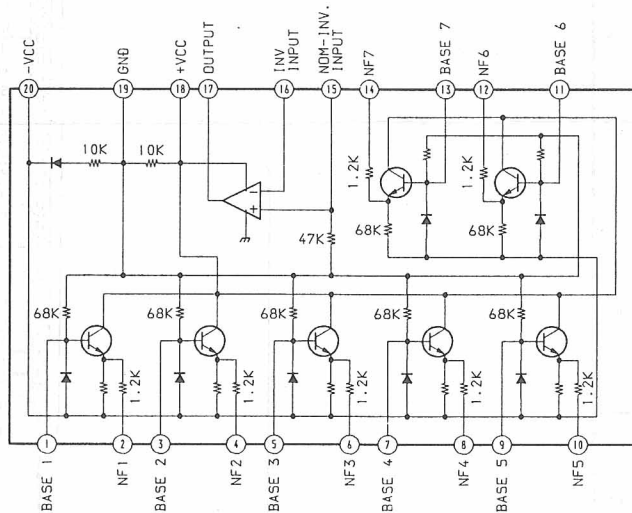


• IC Block Diagrams.

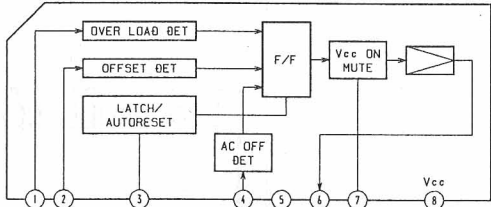
IC1005 NJU7305L



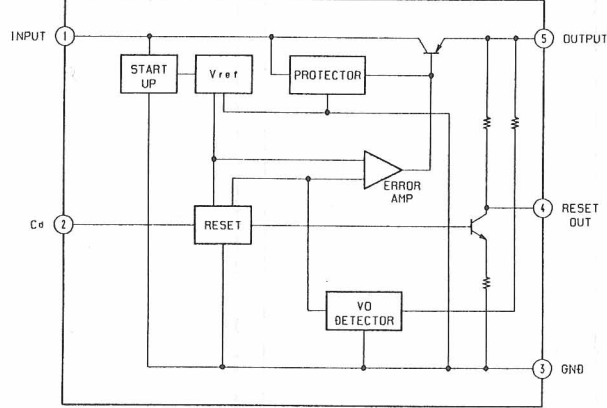
IC1006, 1056 M5289P



IC1341 µPC1237HA



IC1601 L78MR06

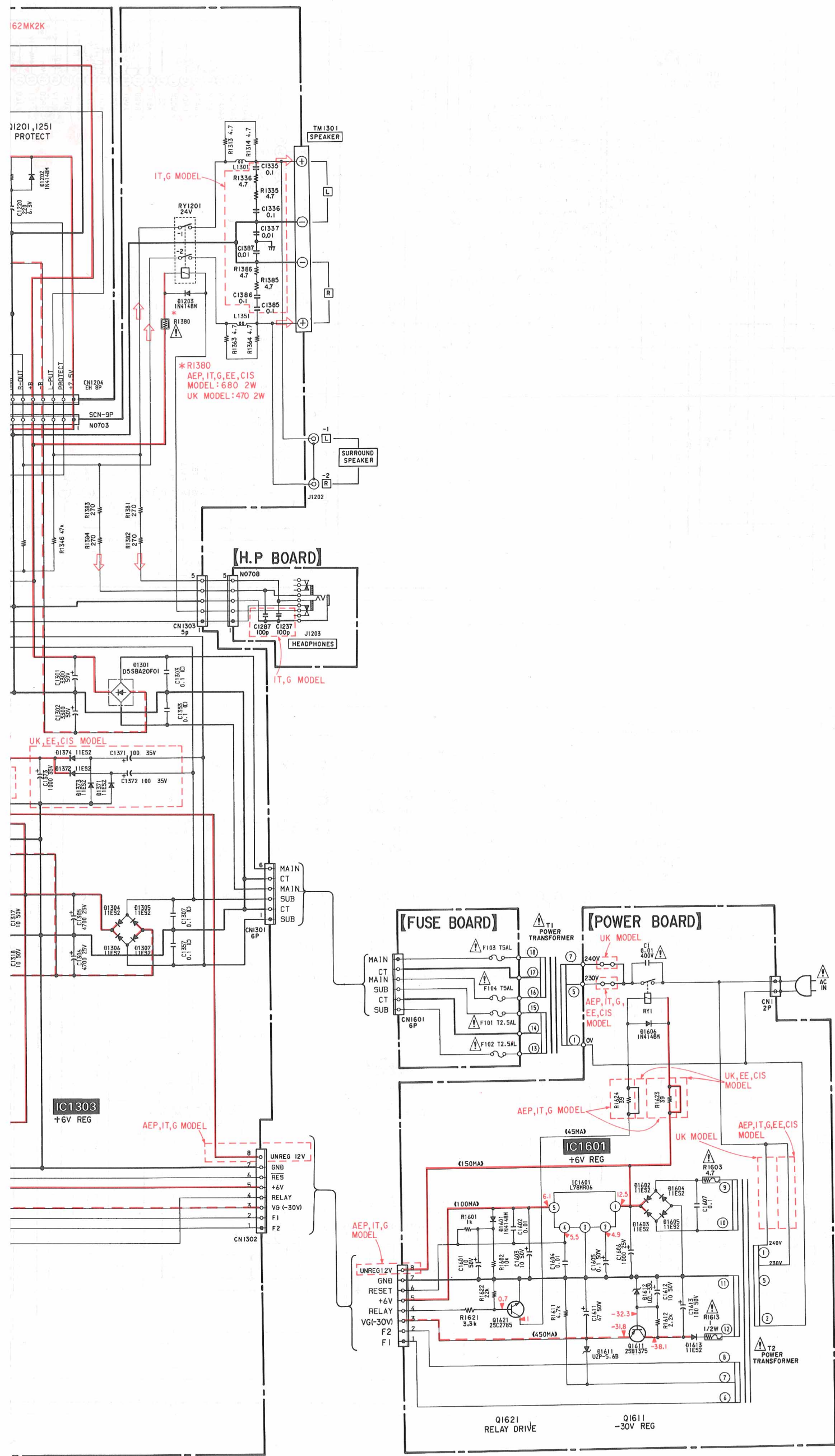


Note:

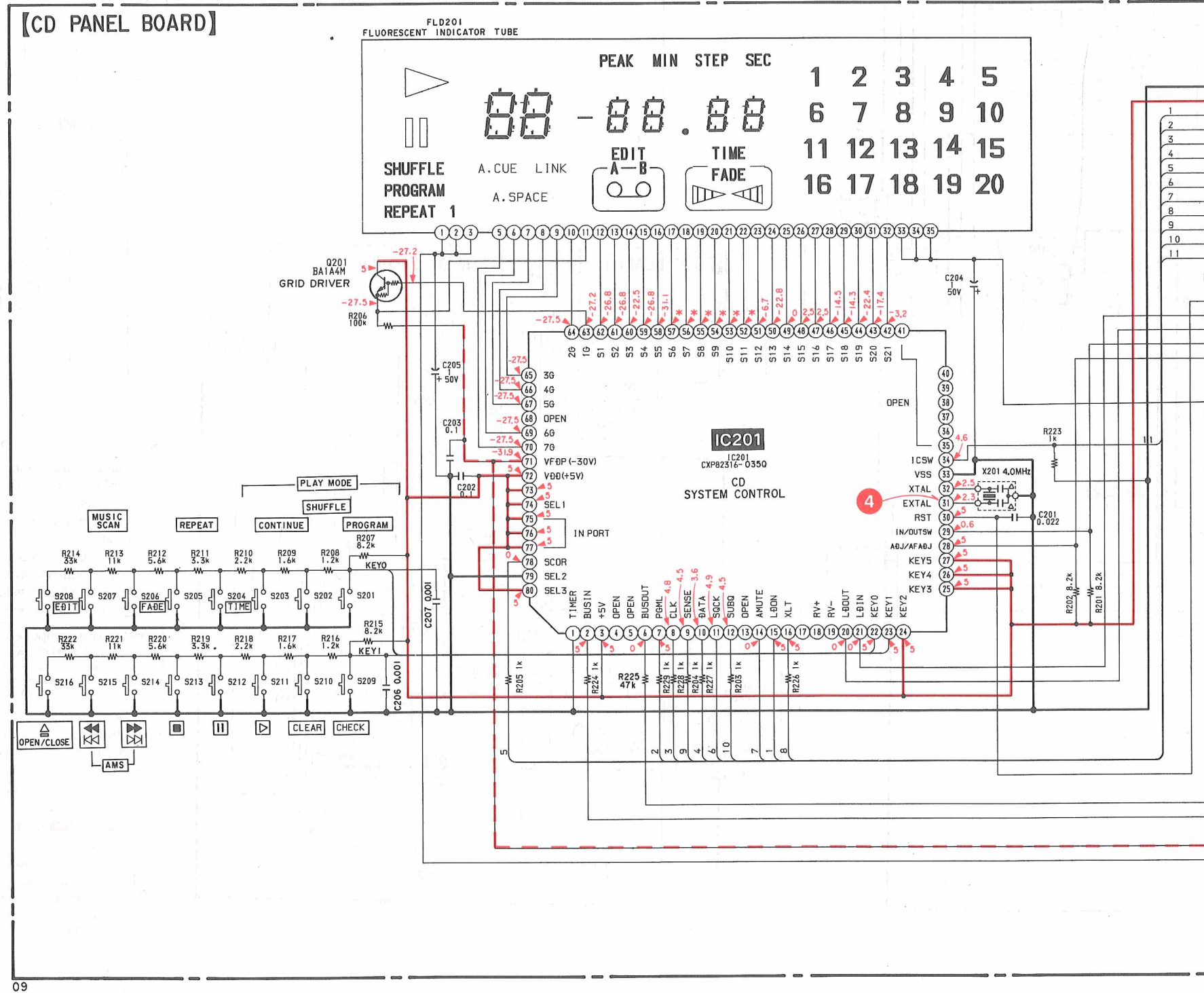
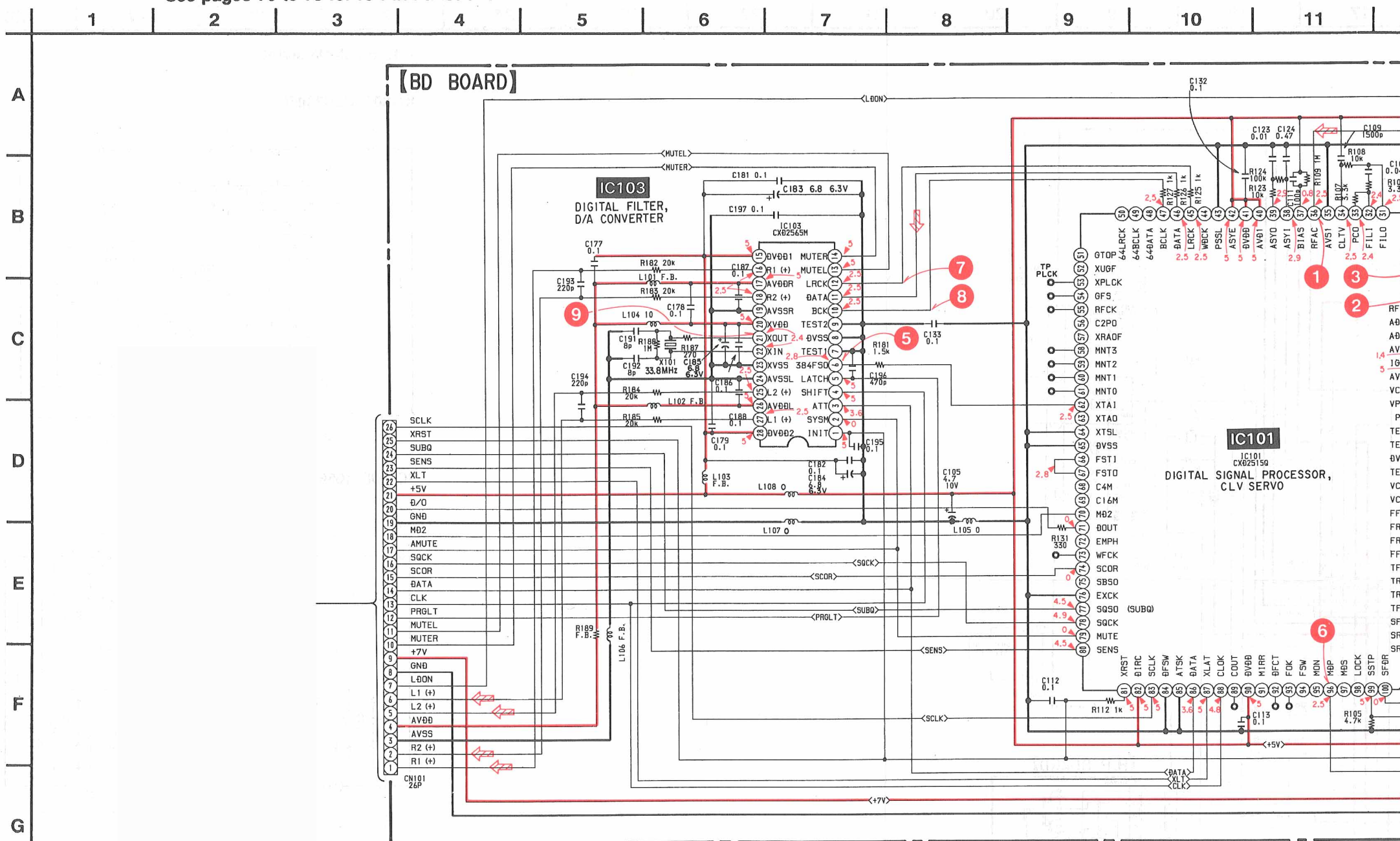
- All capacitors are in μF unless otherwise noted. $\text{pF}; \mu\text{F}$ 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- \square : nonflammable resistor.
- \square : fusible resistor.
- \square : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

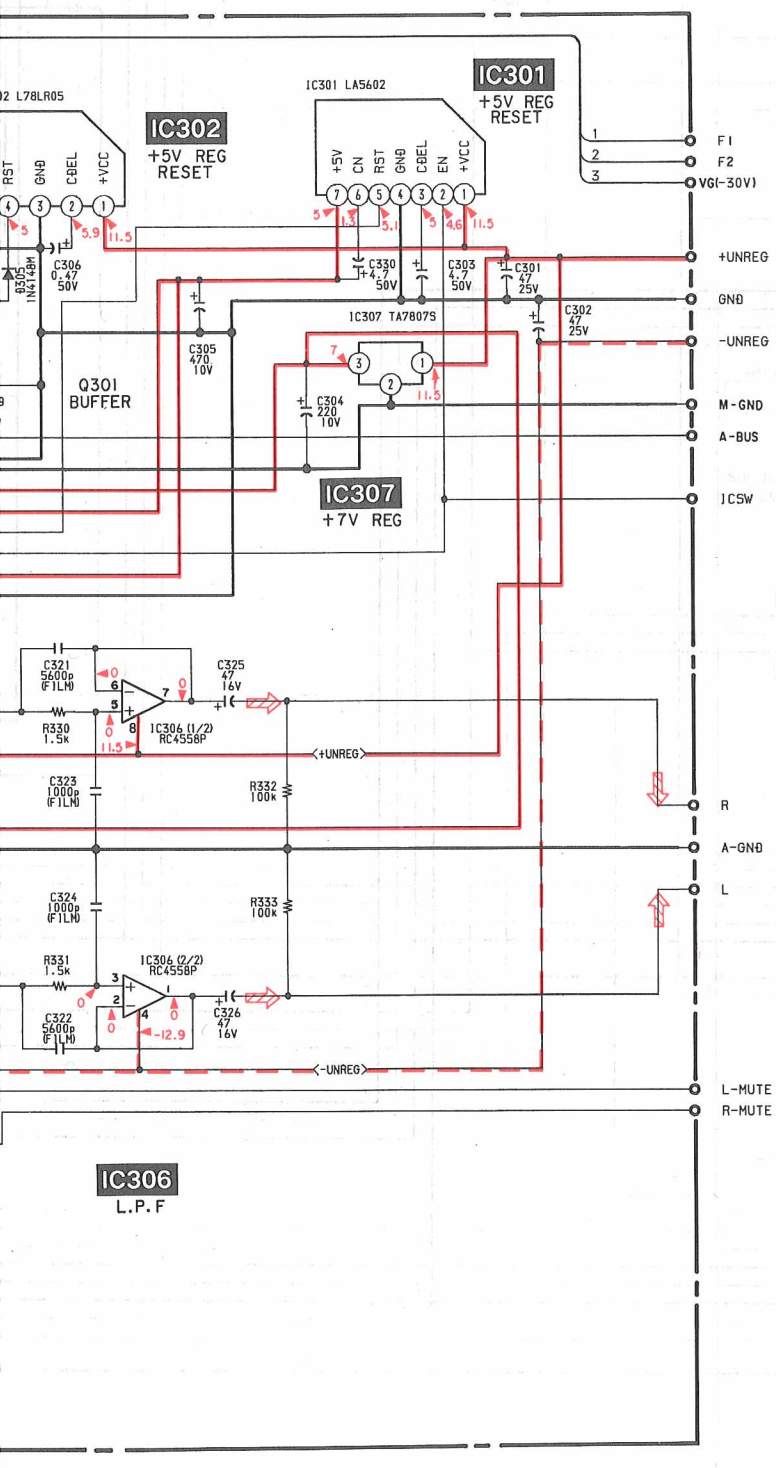
- --- : B+ Line
- --- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark : FM
- * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- G : German model.
- IT : Italian model.
- EE : East European model.
- Signal path.
- \square : FM
- \square : PB
- \square : REC
- \square : CD
- \square : PHONO



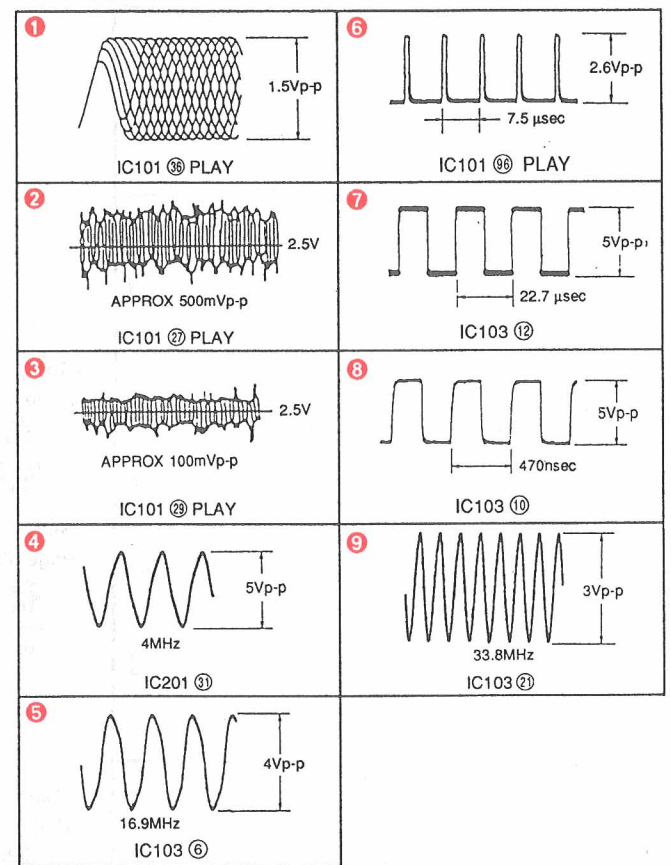
- Refer to page 31 for Printed Wiring Boards. (Main Board)
- See pages 45, 46 for IC Block Diagrams.
- See pages 70 to 73 for IC Pin Functions.



-240A)

VR2
2.2KC1
AMP

• Waveforms.



Note:

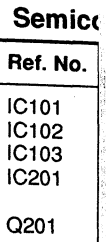
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.




- --- : B+ Line
- --- : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY
* : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 \Rightarrow : CD

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.



Note:

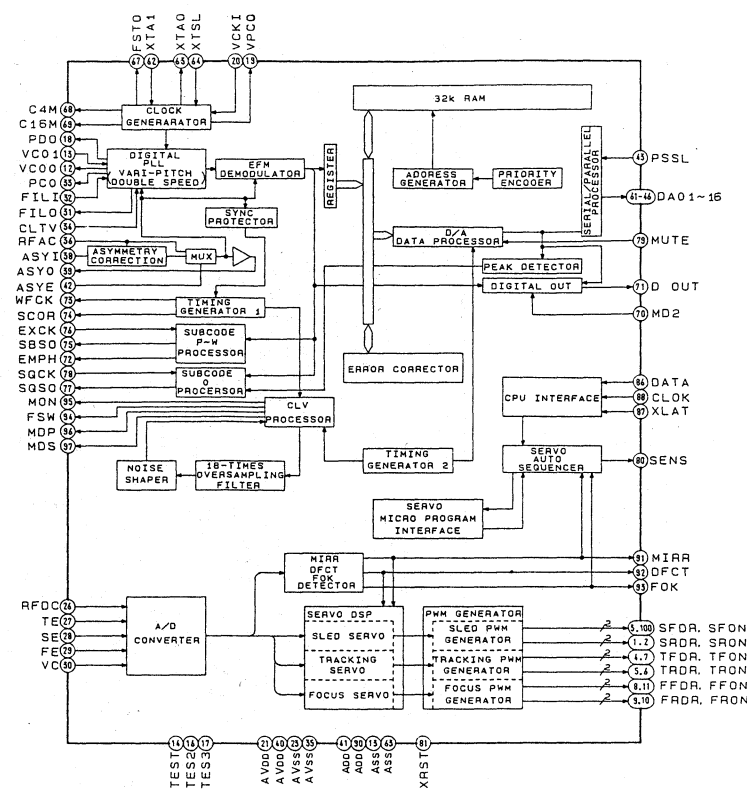
		:
		:
		:

• Semiconductor Location

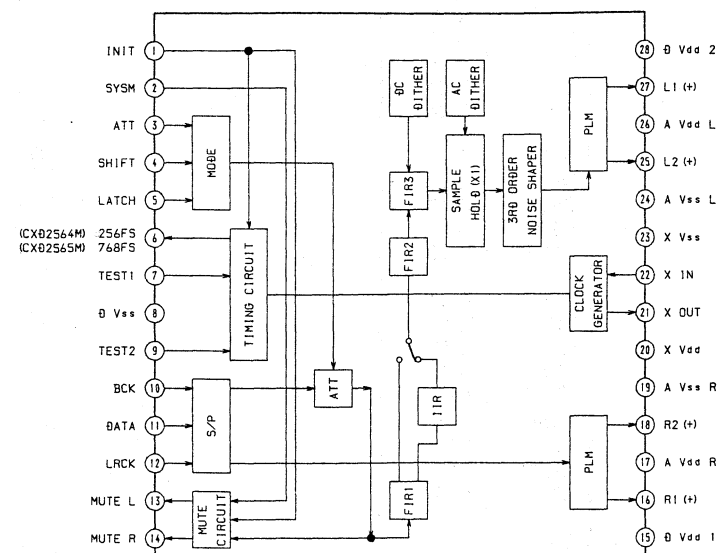
Ref. No.	Location
IC101	D-2
IC102	C-8
IC103	D-4
IC201	I-9
Q201	I-12

• IC Block Diagrams.

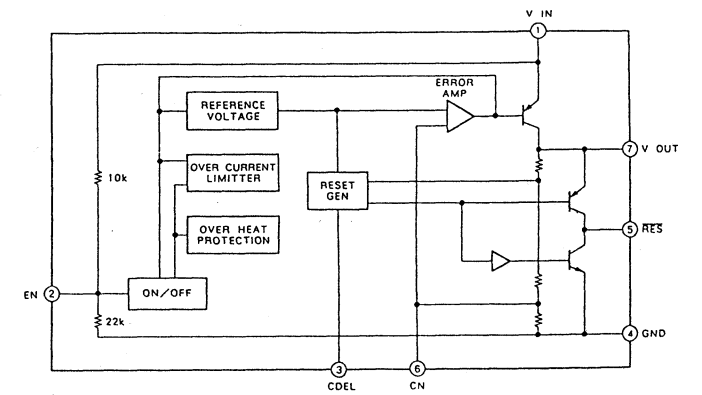
IC101 CXD2515Q



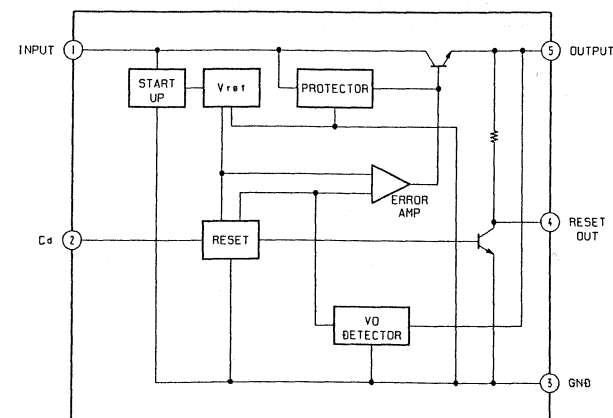
IC103 CXD2565M



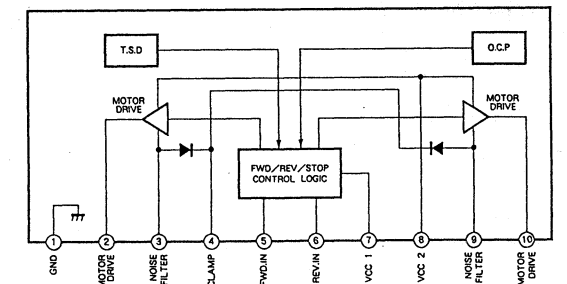
IC301 LA5602



IC302 L78LR05



IC304 LB1641



Note:

- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

5-10. PRINTED WIRING BOARDS — DECK SECTION —

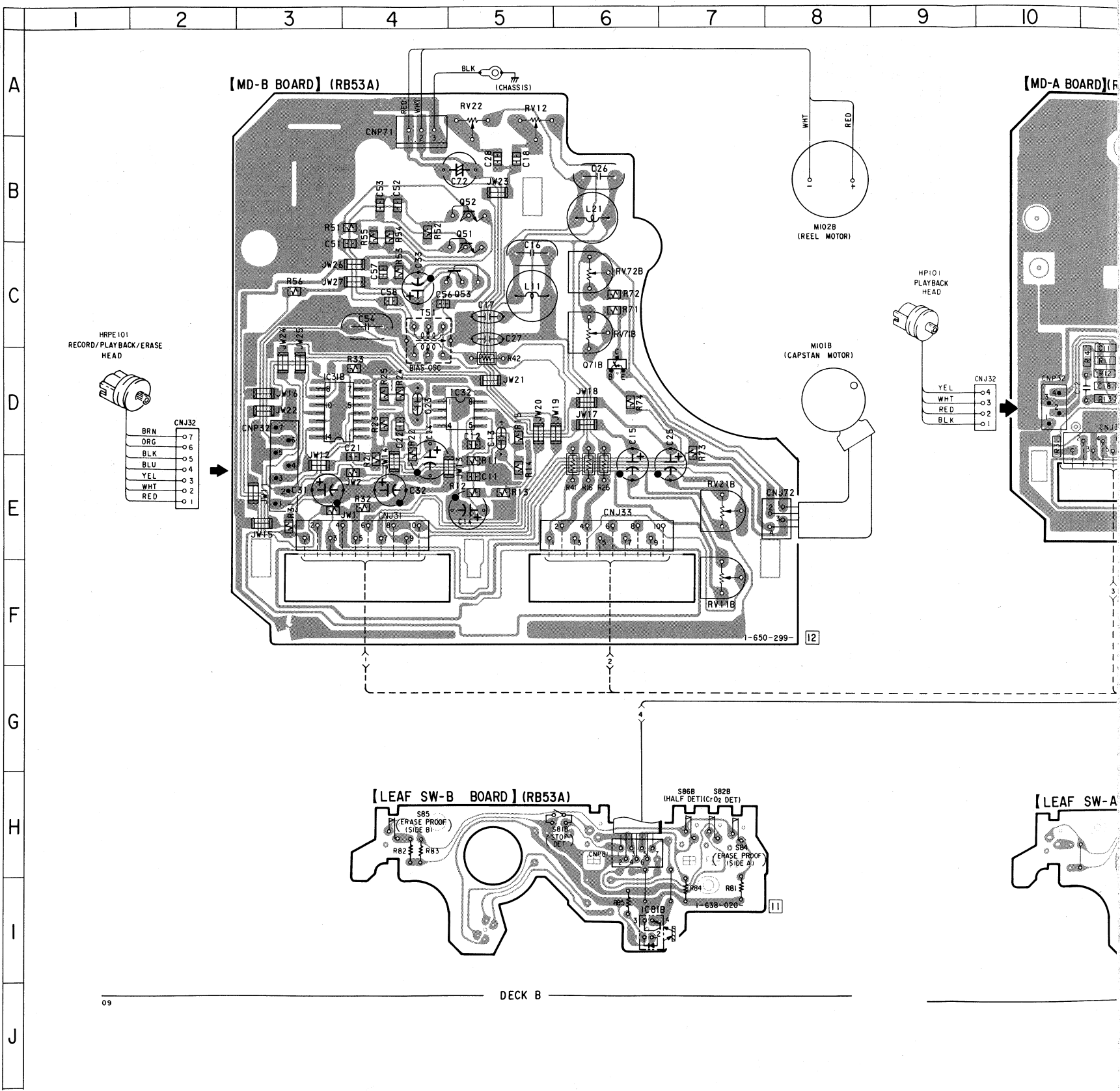
- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.

• Semiconductor Location

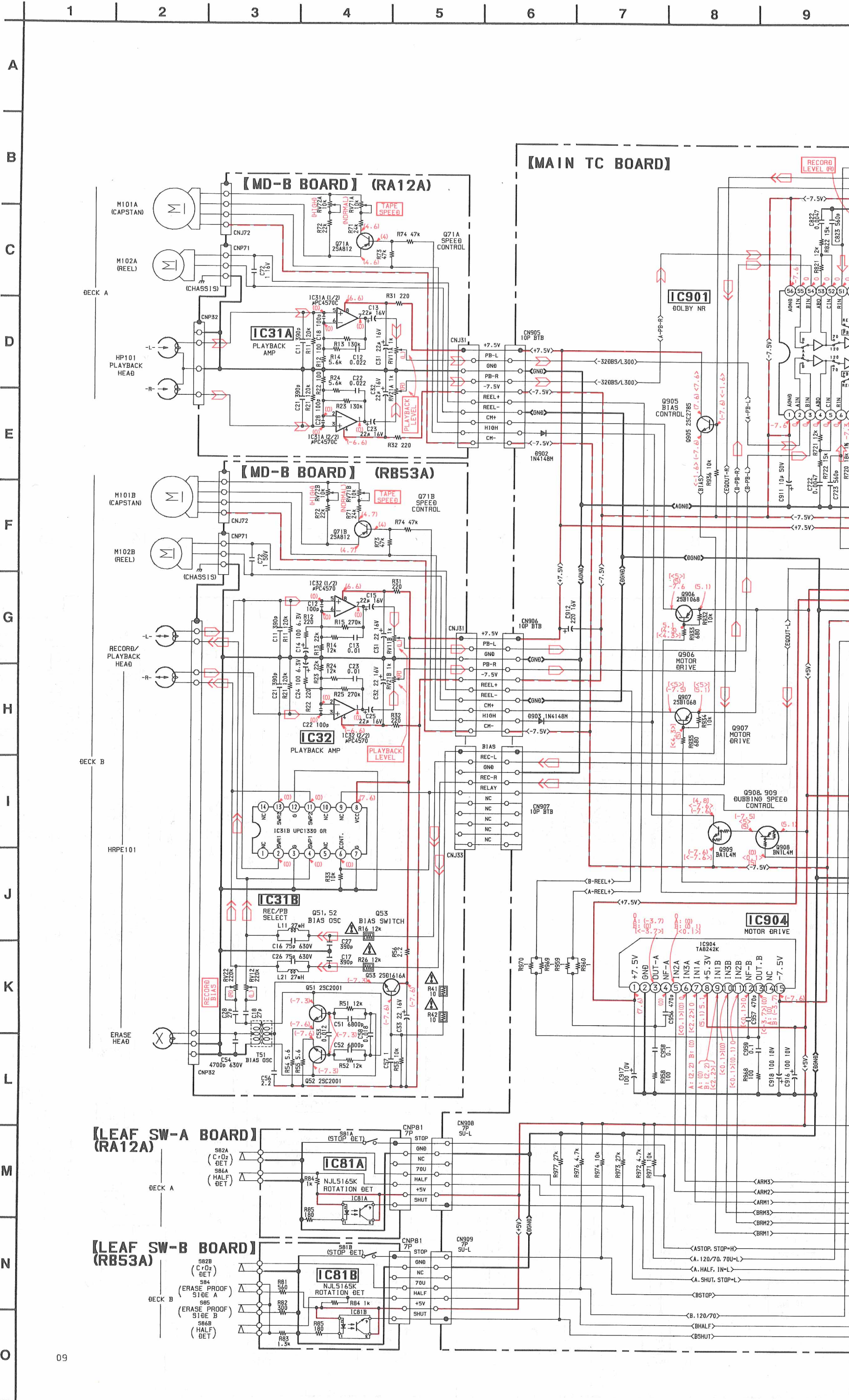
Ref. No.	Location
D901	I-18
D902	K-22
D903	K-19
D904	J-17
D905	J-18
D982	D-24
D983	D-24
D991	B-19
D992	B-20
D994	D-19
D995	D-19
D997	B-19
D998	B-19
IC31A	D-11
IC31B	C-3
IC32	D-5
IC81A	I-13
IC81B	I-6
IC901	I-25
IC902	I-20
IC903	I-19
IC904	I-23
Q51	C-5
Q52	B-5
Q53	C-5
Q71A	C-13
Q71B	D-6
Q701	H-24
Q801	H-23
Q901	H-18
Q902	I-18
Q903	I-18
Q904	H-18
Q905	K-19
Q906	H-22
Q907	H-22
Q908	H-23
Q909	H-23
Q910	I-18

Note:

- ○ : parts extracted from the component side.
- □ : indicates side identified with part number.
- ■ : Pattern from the side which enable seeing.

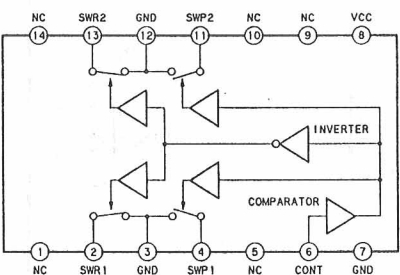


5-11. SCHEMATIC DIAGRAM — DECK SECTION —
• See pages for 78, 79 IC Pin Functions.

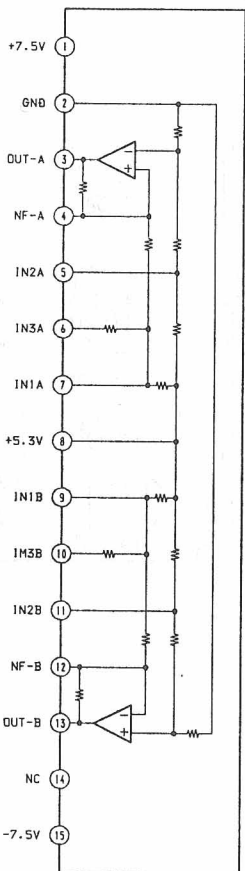


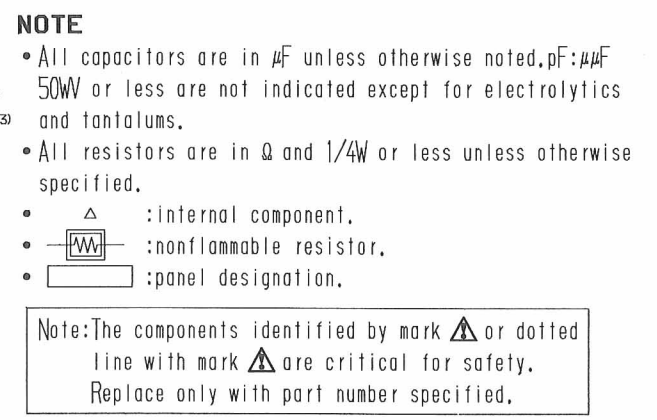
C Block Diagrams.

IC31B μ PC1330GR



IC904 TA8242K







5-12. PRINTED WIRING BOARDS — PANEL (AEP, G, IT MODEL) SECTION —

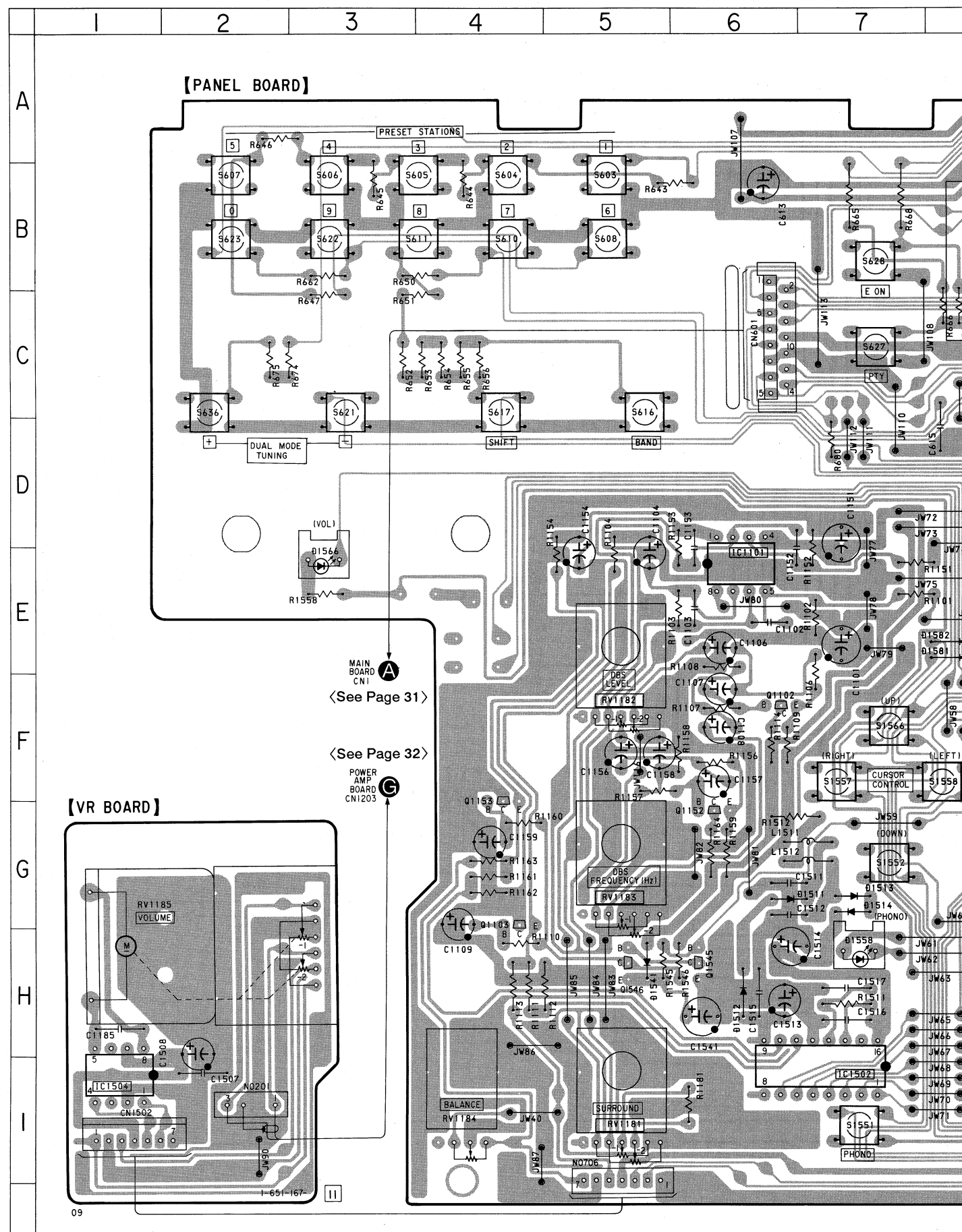
- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.

- **Semiconductor Location**

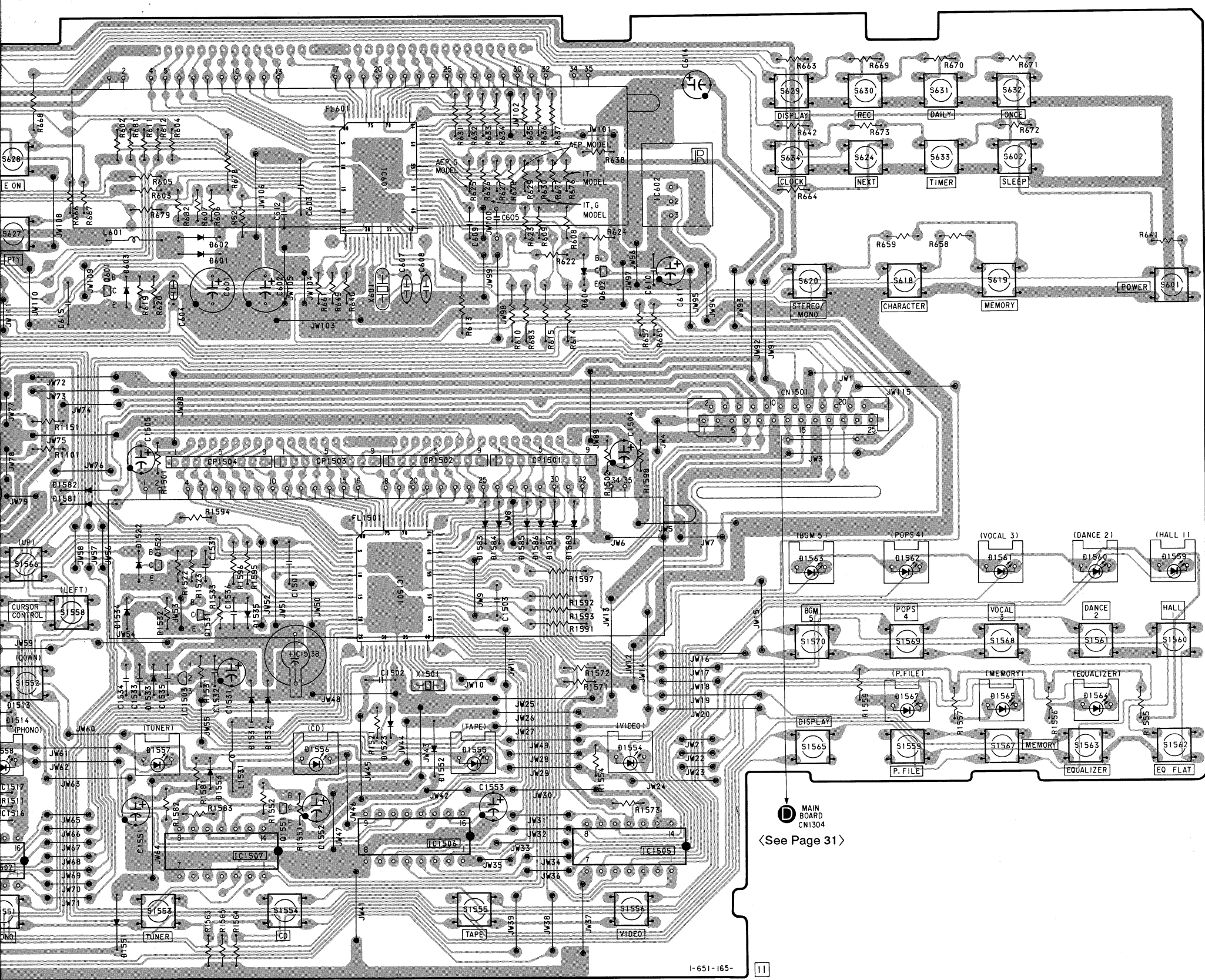
Ref. No.	Location	Ref. No.	Location
D601	C-9	D1567	G-15
D602	C-9	D1581	E-8
D603	C-8	D1582	E-8
D604	C-12	D1583	F-11
D1511	G-6	D1584	F-11
D1512	H-6	D1585	F-12
D1513	G-7	D1586	F-12
D1514	G-7	D1587	F-12
D1522	F-8	D1589	F-12
D1523	G-10		
D1531	G-9	IC601	B-10
D1532	G-9	IC602	C-13
D1533	G-8	IC1101	E-6
D1534	F-8	IC1501	F-11
D1535	F-9	IC1502	I-7
D1541	H-5	IC1503	G-9
D1551	I-8	IC1504	I-1
D1552	H-11	IC1505	I-13
D1553	H-9	IC1506	H-11
D1554	H-13	IC1507	I-9
D1555	H-11		
D1556	H-10	Q601	C-8
D1557	H-8	Q602	C-12
D1558	H-7	Q1102	F-6
D1559	F-18	Q1103	G-4
D1560	F-17	Q1152	G-6
D1561	F-16	Q1153	G-4
D1562	F-15	Q1521	F-8
D1563	F-14	Q1531	F-9
D1564	G-17	Q1545	H-6
D1565	G-16	Q1546	H-5
D1566	E-3	Q1551	H-10

Note:

-  : parts extracted from the component side.
-  : Pattern from the side which enable seeing.
- G : German model.
- IT : Italian model.



8	9	10	11	12	13	14	15	16	17	18
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MAIN BOARD
CN1304
(See Page 31)

I-651-165-

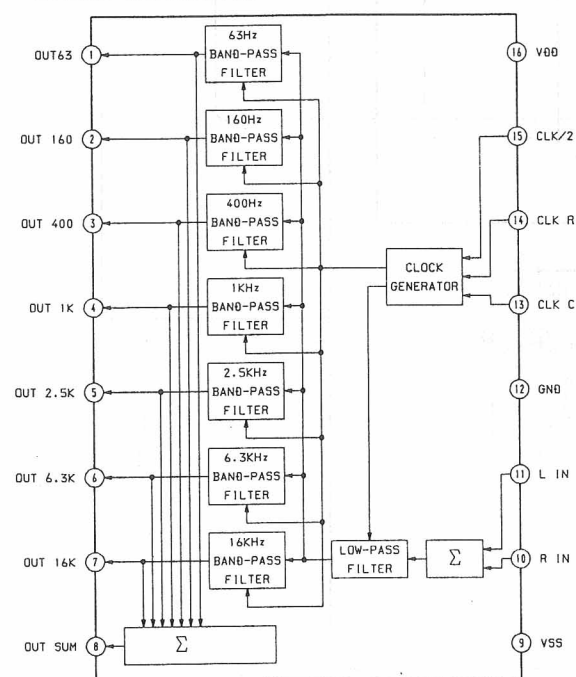
• See pages 74, 75 and 80, 81 for IC Pin Functions.



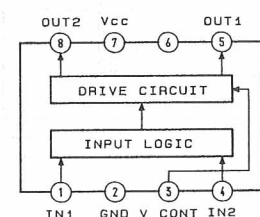
- All capacitors are in μF unless otherwise noted. $\text{pF}; \mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
-  : panel designation.

-  : B+ Line
-  : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : FM
- () : TAPE
- * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- G : German model.
- IT : Italian model.
- Signal path.
-  : FM

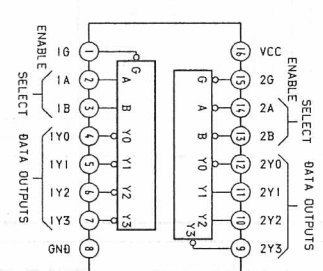
- **IC Block Diagrams.**
IC1502 XR1091DCP



IC1504 LB1639

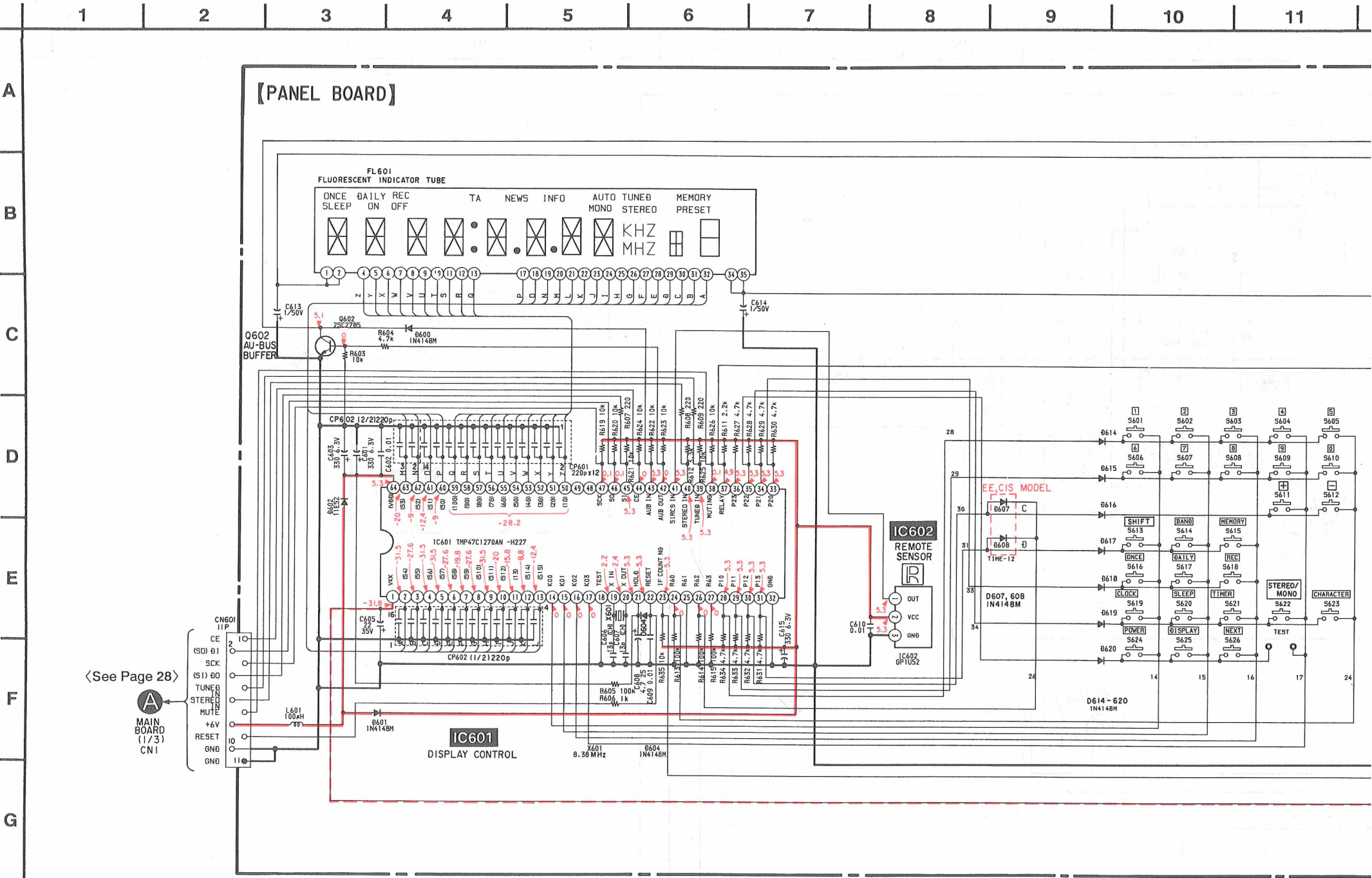


IC1506 MC74HC139





5-14. SCHEMATIC DIAGRAM — PANEL (UK, EE, CIS MODEL) SECTION —
• See pages 76, 77, 80 and 81 for IC Pin Functions.



Note:

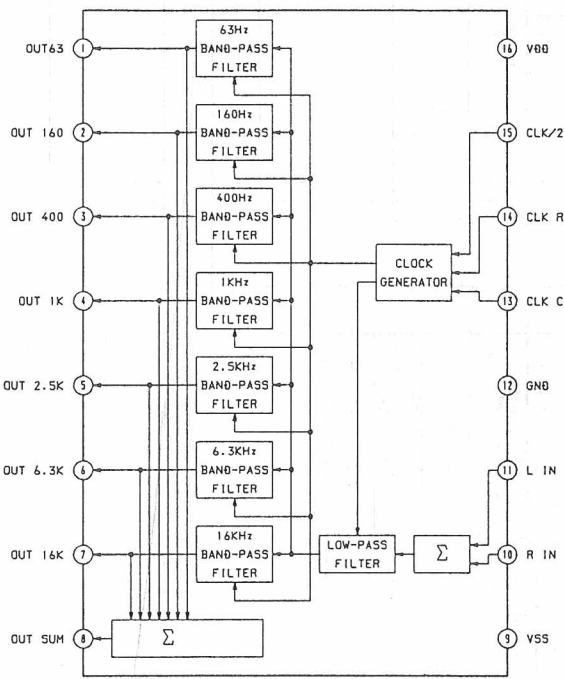
- All capacitors are in μF unless otherwise noted. $\text{pF}:\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

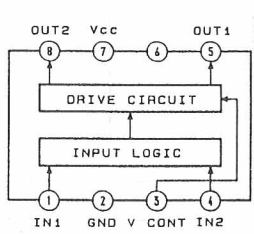
- — : B+ Line
- - - - : B- Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : FM
- () : TAPE
- * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- EE : East European model.
- Signal path.
- \Rightarrow : FM

• IC Block Diagrams.

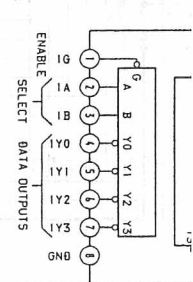
IC1502 XR1091DCP

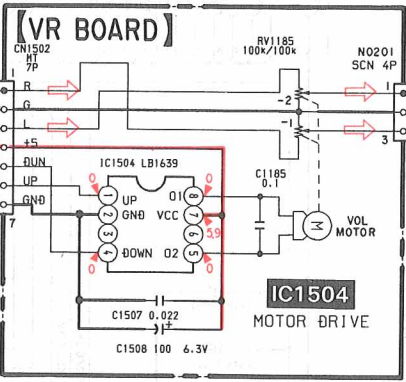


IC1504 LB1639



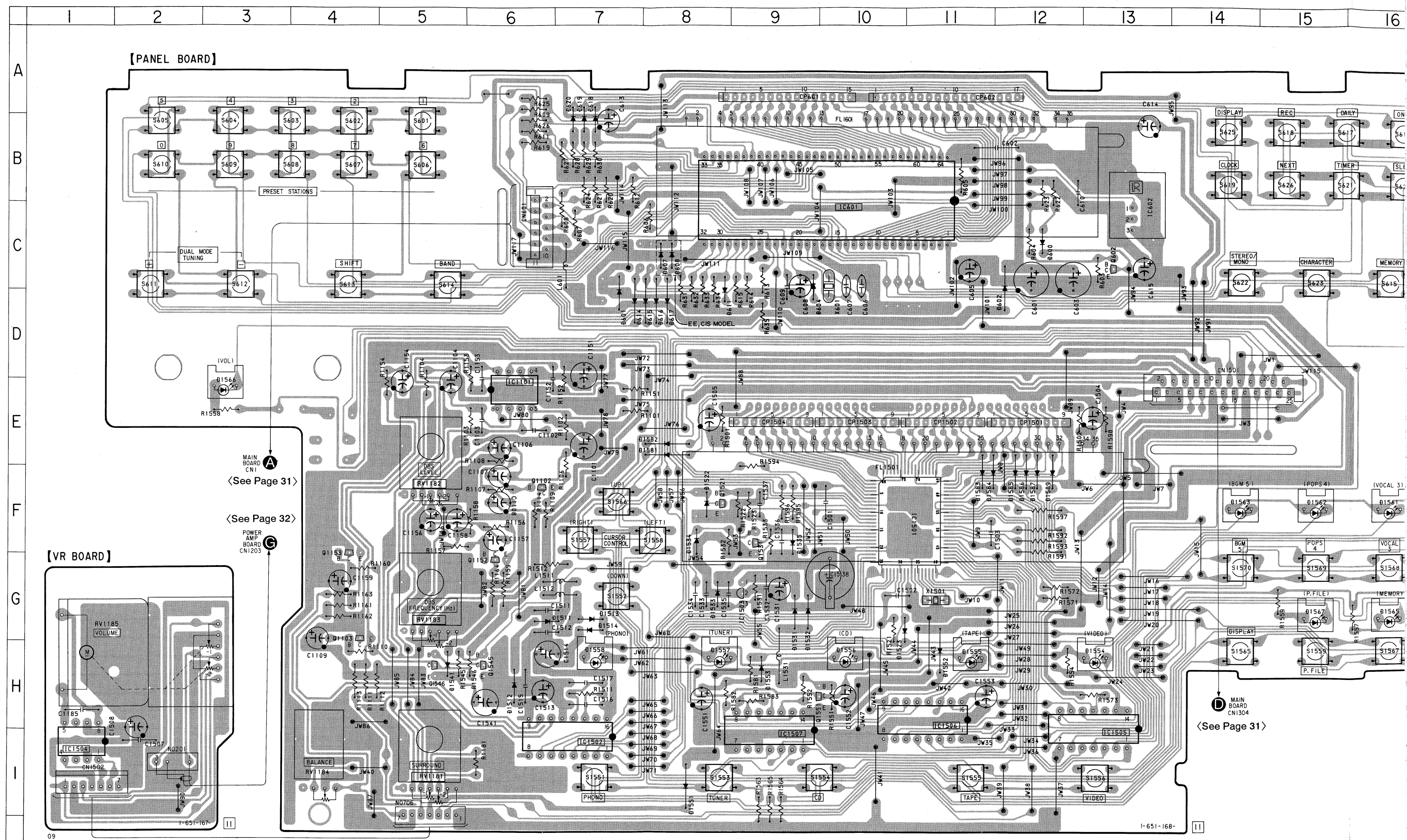
IC1506 MC74HC





5-15. PRINTED WIRING BOARDS — PANEL (AEP, IT, G MODEL) SECTION —

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.





Ref. No.	Location	Ref. No.	Location
D600	C-12	D1562	F-15
D601	D-7	D1563	F-14
D602	D-12	D1564	G-17
D604	D-9	D1565	G-16
D607	C-8	D1566	E-3
D608	C-8	D1567	G-15
D614	D-7	D1581	E-8
D615	D-8	D1582	E-8
D616	D-8	D1583	F-11
D617	D-8	D1584	F-11
D618	A-7	D1585	F-12
D619	A-7	D1586	F-12
D620	A-7	D1587	F-12
D1511	G-6	D1589	F-12
D1512	H-6		
D1513	G-7	IC602	C-13
D1514	G-7	IC1101	E-6
D1522	F-8	IC1501	F-11
D1523	G-10	IC1502	I-7
D1531	G-9	IC1503	G-9
D1532	G-9	IC1504	I-1
D1533	G-8	IC1505	I-13
D1534	F-8	IC1506	H-11
D1535	F-9	IC1507	I-9
D1541	H-5		
D1551	I-8	Q602	C-13
D1552	H-11	Q1102	F-6
D1553	H-9	Q1103	G-4
D1554	H-13	Q1152	G-6
D1555	H-11	Q1153	G-4
D1556	H-10	Q1521	F-8
D1557	H-8	Q1531	F-9
D1558	H-7	Q1545	H-6
D1559	F-18	Q1546	H-5
D1560	F-17	Q1551	H-10
D1561	F-16		

- — : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- EE : East European model.

5-16. IC PIN FUNCTIONS

• IC101 (CXD2515Q)

No.	Pin Name	I/O	Description
1	SRON	O	Sled drive output
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output
12	VCOO	O	VCO output for analog EFM PLL
13	VCOI	I	VCO output for analog EFM PLL
14	TEST	I	TEST pin connected normally to GND
15	DVss	—	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL
19	VPCO	O	Charge-pump output for variable pitch PLL
20	VCKI	I	Clock input from variable pitch external VCO
21	AVD2	—	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	—	Analog GND
24	ADII	I	Input pin for A/D converter
25	ADIO	O	Operational amplifier output pin
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	—	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry compare voltage input
39	ASYO	O	EFM full swing output
40	AVD1	—	Analog power supply
41	DVDD	—	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. Word clock

No.	Pin Name	I/O	Description
45	LRCK	O	48-bit slot D/A interface. LR clock
46	DATA	O	DA 16 output when PSSL = 1. 48-bit slot serial data when PSSL = 0
47	BCLK	O	DA 15 output when PSSL = 1. 48-bit slot data when PSSL = 0
48	64DATA	O	DA 14 output when PSSL = 1. 64-bit slot data when PSSL = 0
49	64BCLK	O	DA 13 output when PSSL = 1. 64-bit slot data when PSSL = 0
50	64LRCK	O	DA 12 output when PSSL = 1. 64-bit slot data when PSSL = 0
51	GTOP	O	DA 11 output when PSSL = 1. GTOP output when PSSL = 0
52	XUGF	O	DA 10 output when PSSL = 1. XUGF output when PSSL = 0
53	XPLCK	O	DA 09 output when PSSL = 1. XPLCK output when PSSL = 0
54	GFS	O	DA 08 output when PSSL = 1. GFS output when PSSL = 0
55	PFCK	O	DA 07 output when PSSL = 1. RFCK output when PSSL = 0
56	C2PO	O	DA 06 output when PSSL = 1. C2PO output when PSSL = 0
57	XRAOF	O	DA 05 output when PSSL = 1. XRAOF output when PSSL = 0
58	MNT3	O	DA 04 output when PSSL = 1. MNT3 output when PSSL = 0
59	MNT2	O	DA 03 output when PSSL = 1. MNT2 output when PSSL = 0
60	MNT1	O	DA 02 output when PSSL = 1. MNT1 output when PSSL = 0
61	MNT0	O	DA 01 output when PSSL = 1. MNT0 output when PSSL = 0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output
64	XTSL	I	X'tal selection input pin
65	DVss	—	Digital GND
66	FSTI	I	2/3 divider output of pins 62,63
67	FSTO	O	2/3 divider output of pins 62,63
68	C4M	O	4.2336MHz output
69	C16M	O	16.9344MHz output
70	MD2	I	Digital-out ON/OFF control pin
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output
76	EXCK	I	Clock input for SBSO read-out
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQSO read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin
85	ATSK	I	Input pin for anti-shock
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU

No.	Pin Name	I/O	Description
89	COUT	O	Numbers of track counted signal output
90	DVDD	—	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter
95	MON	O	Output to control ON/OFF of spindle motor
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo
98	LOCK	O	GFS is sampled by 460Hz. H when GFS is H.
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

• IC103 (CXD2565M)

No.	Pin Name	I/O	Description
1	INIT	I	Re-synchronizing at rise-up edge of this signal
2	SYSM	I	System muting input
3	ATT	I	Attenuation data input
4	SHIFT	I	Shift clock input
5	LATCH	I	Latch clock input
6	384FSO	O	384fs clock output
7	TEST1	I	Test pin. Fixed to "L" level during normal operation.
8	DVSS	—	Digital GND
9	TEST2	I	Test pin. Fixed to "L" level during normal operation.
10	BCK	I	BCK input
11	DATA	I	Data input
12	LRCK	I	LRCK input
13	MUTEL	O	L-ch muting flag output
14	MUTER	O	R-ch muting flag output
15	DVDD1	—	Digital power supply
16	R1 (+)	O	R-ch PLM output-1 (positive phase)
17	AVDDR	—	L-ch analog power supply
18	R2 (+)	O	R-ch PLM output-2 (positive phase)
19	AVSSR	—	L-ch analog GND
20	XVDD	—	Master clock power supply
21	XOUT	O	X'tal oscillator output (33.8MHz)
22	XIN	I	X'tal oscillator input (33.8MHz)
23	XVSS	—	Master clock GND
24	AVSSL	—	L-ch analog GND
25	L2 (+)	O	L-ch PLM output-2 (positive phase)
26	AVDDL	—	L-ch analog power supply
27	L1 (+)	O	L-ch PLM output-1 (positive phase)
28	DVDD2	—	Digital power supply

• IC201 (CXP82316-035Q)

Pin No.	Pin Name	I/O	Function
1	TIMER	—	Connected to GND.
2	BUSIN	I	Audio bus input.
3	+5V	—	Connected to +5V.
4	OPEN	—	} Not used. (open)
5	OPEN	—	
6	BUS OUT	O	Audio bus output.
7	PGML	O	Latch signal output to digital filter (IC103).
8	CLK	O	Serial clock output.
9	SENSE	I	SENSE signal input.
10	DATA	O	Serial data output.
11	SQCK	O	Read out clock output for subcode Q data.
12	SUBQ	I	Subcode Q data input.
13	OPEN	—	Not used. (open)
14	AMUTE	O	Analog muting control signal output.
15	LDON	O	Optical pickup laser diode control output.
16	XLT	O	Serial data latch signal output.
17	—	—	Not used. (open)
18	RV+	O	Remote commander volume +.
19	RV-	O	Remote commander volume -.
20	LDOUT	O	} Loading motor control signal output.
21	LDIN	O	
22	KEY0	I	} Key input. (S201 to S216)
23	KEY1	I	
24 to 27	KEY2 to KEY5	—	Connected to +5V.
28	ADJ/AFADJ	—	ADJ, AFJ test pin.
29	IN/OUTSW	I	Loading IN/OUT switch input.
30	RST	I	Reset signal input.
31	EXTAL	I	Clock input. (4 MHz)
32	XTAL	O	Clock output. (4 MHz)
33	Vss	—	GND
34	ICSW	O	CD power supply control pin.
35 to 41	OPEN	—	Not used. (open)
42 to 62	SEG1 to SEG21	O	FL segment output.
63 to 67	1G to 5G	O	FL grid output.
68	OPEN	—	Not used. (open)
69	6G	O	} FL grid output.
70	7G	O	
71	VFDP (-30V)	—	-30V pin for FL display tube.
72	VDD (+5V)	—	} +5V pin.
73	—	—	
74	SEL1	—	} Connected to +5 V.
75	IN PORT	—	
76	IN PORT	—	
77	IN PORT	—	
78	SCOR	I	Read out timing signal input for subcode Q data.
79	SEL2	—	Connected to GND.
80	SEL3	—	Connected to +5 V.

• IC601 System Control (μ PD78043GF-079 (054)-3B9) (AEP, G, IT Model)

Pin No.	Pin Name	I/O	Function
1	T6	O	FL tube digit output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	—	System power supply (+5V)
9	RDS CLOCK	I	RDS clock input
10	—	I	Nut used. (Connected to GND)
11	RDS DATA	I	RDS data input
12	RDS RESET	O	RDS reset output
13	LATCH	O	PLL latch output
14	CLOCK	O	PLL clock output
15	DATA OUT	O	PLL data output
16	DATA IN	I	PLL data (IF count) input
17	RESET	I	System reset input
18	TUNED	I	Tuned (Auto stop) input
19	STEREO	I	Stereo input
20	A/D GND	—	Ground for A/D converter
21	—	I	Not used. (Connected to GND)
22	—	I	
23	—	I	
24	—	I	
25	—	I	
26	KEY IN	I	Key input
27	KEY IN	I	
28	KEY IN	I	
29	A/D +5V	—	Analog power supply for A/D converter (+5V)
30	A/D REF +5V	—	Reference voltage input for A/D converter (+5V)
31	—	I	Not used. (Connected to GND)
32	—	—	Not used. (open)
33	SYS GND	—	System ground terminal
34	X1	I	Main system clock (4.194304 MHz)
35	X2	O	Main system clock
36	RDS EON OUT	O	RDS EON output
37	F MONI	O	F monitor output (2048 Hz)
38	—	I	Not used. (Connected to GND)
39	—	I	
40	—	I	

Pin No.	Pin Name	I/O	Function
41	—	I	} Not used. (Connected to GND)
42	—	I	
43	CD BUSY	I	CD busy input
44	RDS START	I	RDS data start input
45	SIRCS	I	SIRCS input
46	AUB IN	I	AUB input
47	INTP0	I	Power failure detection input
48	GND	—	Internal connection (Connected to GND)
49	AUB OUT	O	AUB output
50	MUTING	O	Muting output (Tuner)
51	RELAY	O	Relay output (Power)
52	VDD	—	System power supply (+5V)
53	—	I	} Not used. (Connected to GND)
54	—	I	
55	—	I	
56	EON	I	Initial setting input (EON)
57	DIMMER	I	Initial setting input (EON active)
58	AUTO TUN	I	Initial setting input (AUTO TUN)
59	VERSION	I	} Initial setting input (the destination)
60	VERSION	I	
61	S15	O	} FL tube segment output
62	S14	O	
63	S13	O	
64	S12	O	
65	S11	O	
66	S10	O	
67	S9	O	
68	S8	O	
69	S7	O	
70	S6	O	
71	-30V	—	Negative power supply for the FL tube
72	S5	O	} FL tube segment output
73	S4	O	
74	S3	O	
75	S2	O	
76	S1	O	
77	S0	O	
78	T9	O	} FL tube digit output
79	T8	O	
80	T7	O	

• IC601 System Control (TMP47C1270AN-H227) (UK, EE, CIS Model)

Pin No.	Pin Name	I/O	Function
1	VKK	—	–29V power supply for driving fluorescent display.
2	S15	O	Fluorescent display driving
3	S14	O	
4	S13	O	
5	S12	O	
6	S11	O	
7	S10	O	
8	S9	O	
9	S8	O	
10	S7	O	
11	S6	O	
12	S5	O	
13	S4	O	
14	K00	I	Key input
15	K01	I	
16	K02	I	
17	K03	I	
18	TEST	—	Test terminal
19	X IN	I	System clock (8.388608 Hz) connected to crystal oscillator.
20	X OUT	O	
21	RESET	I	System reset input
22	HOLD	I	
23	—	—	IF count NG (F monitor) output
24	R60	I	Key input
25	—	—	Not used
26	R62	I	Diode input
27	R63	I	
28	P10	O	Key output
29	P11	O	
30	P12	O	
31	P13	O	
32	GND	—	GND
33	P20	O	Key output
34	P21	O	
35	P22	O	
36	—	—	Not used
37	RELAY	O	RELAY output
38	MUTING	O	MUTING output
39	TUNED IN	I	TUNED input
40	STEREO IN	I	STEREO input

Pin No.	Pin Name	I/O	Function
41	SIRCS	I	SIRCS input
42	AUB OUT	O	Audio bus output
43	AUB IN	I	Audio bus input
44	CE	O	Chip select to tuner PLL IC (LC7218)
45	SI	I	Serial data from tuner PLL IC (LC7218)
46	SO	O	Serial data to tuner PLL IC (LC7218)
47	SCK	O	Serial clock to tuner PLL IC (LC7218)
48	—	—	} Not used
49	—	—	
50	1G	O	} Fluorescent display driving
51	2G	O	
52	3G	O	
53	4G	O	
54	5G	O	
55	6G	O	
56	7G	O	
57	8G	O	
58	9G	O	
59	10G	O	
60	S0	O	
61	S1	O	
62	S2	O	
63	S3	O	
64	VDD	—	+5V power supply

Pin No.	Pin Name	I/O	Function
41	SIRCS	I	SIRCS input
42	AUB OUT	O	Audio bus output
43	AUB IN	I	Audio bus input
44	CE	O	Chip select to tuner PLL IC (LC7218)
45	SI	I	Serial data from tuner PLL IC (LC7218)
46	SO	O	Serial data to tuner PLL IC (LC7218)
47	SCK	O	Serial clock to tuner PLL IC (LC7218)
48	—	—	} Not used
49	—	—	
50	1G	O	} Fluorescent display driving
51	2G	O	
52	3G	O	
53	4G	O	
54	5G	O	
55	6G	O	
56	7G	O	
57	8G	O	
58	9G	O	
59	10G	O	
60	S0	O	
61	S1	O	
62	S2	O	
63	S3	O	
64	VDD	—	+5V power supply

• IC902 Deck Controller (M50964-261FP)

Pin No.	Pin Name	I/O	Function																																				
1	G	—	} GND																																				
2	G	—																																					
3	G	—																																					
4	—	—	+5V																																				
5	NORM/HIGH	—	Tape speed “H” =High speed “L” =Normal speed																																				
6	B HALF	I	Deck B record prevention claw A, B detection input (Analog) <table><tr><td>Voltage (V)</td><td>1V</td><td>1.9V</td><td>2.8V</td><td>3.9V</td><td>5V</td></tr><tr><td>Half</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF A</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF B</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr></table>	Voltage (V)	1V	1.9V	2.8V	3.9V	5V	Half	ON	ON	ON	ON	OFF	E. PROOF A	OFF	ON	OFF	ON	OFF	E. PROOF B	ON	ON	OFF	OFF	OFF												
Voltage (V)	1V	1.9V	2.8V	3.9V	5V																																		
Half	ON	ON	ON	ON	OFF																																		
E. PROOF A	OFF	ON	OFF	ON	OFF																																		
E. PROOF B	ON	ON	OFF	OFF	OFF																																		
7	KEY Y	I	KEY input <table><tr><td>Voltage (V)</td><td>0</td><td>0.3</td><td>0.7</td><td>1.2</td><td>1.7</td><td>2.3</td><td>2.8</td><td>3.4</td><td>4.0</td><td>4.5</td><td>5.0</td></tr><tr><td>KEY Y</td><td>B ■</td><td>B ■</td><td>B ►</td><td>B ◀</td><td></td><td>A ◀◀</td><td>A ►►</td><td></td><td></td><td>RELAY</td><td>OFF</td></tr><tr><td>KEY X</td><td>A ■</td><td>A ►</td><td>A ◀</td><td>B ◀◀</td><td>B ►►</td><td>B ●</td><td>DUB</td><td></td><td>CD</td><td></td><td></td></tr></table>	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0	KEY Y	B ■	B ■	B ►	B ◀		A ◀◀	A ►►			RELAY	OFF	KEY X	A ■	A ►	A ◀	B ◀◀	B ►►	B ●	DUB		CD		
Voltage (V)	0	0.3		0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0																											
KEY Y	B ■	B ■	B ►	B ◀		A ◀◀	A ►►			RELAY	OFF																												
KEY X	A ■	A ►	A ◀	B ◀◀	B ►►	B ●	DUB		CD																														
8	KEY X	I																																					
9	AMS IN	I	AMS signal input																																				
10	L MUTE	O	Line mute output																																				
11	R MUTE	O	Mute output																																				
12	RELAY (B MD)	O	REC/PB change relay output																																				
13	R/P	O	Dolby IC REC/PB select output																																				
14	EQ70	O	Playback EQ output for playing deck (Not used)																																				
15	SEL A/B	O	Dolby IC PB input Deck A/B select output																																				
16	AMS MUTE	O	AMS mute output																																				
17	AU BUS	I	AUDIO BUS input																																				
18	BIAS	O	Bias oscillation output																																				
19	AUB OUT	O	AUDIO BUS output																																				
20	A BUS	I	AUDIO BUS normal input																																				
21	NC	—	Not used																																				
22	NC	—	} GND																																				
23	NC	—																																					
24	Vss	—																																					
25	RESET	I	Microcomputer reset input																																				
26	XIN	I	Clock input (4 MHz)																																				
27	XOUT	O	Clock output (4 MHz)																																				
28	φ	O	Not used (open)																																				
29	Vss	—	} GND																																				
30	PW IN	I																																					
31	A STOP	I	Deck A STOP switch input																																				
32	A HALF	I	Deck A Half switch input																																				
33	A SHUT	I	Deck A Reel table signal input																																				
34	A70 U	I	GND																																				
35	B STOP	I	Deck B STOP switch input																																				

Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	—	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output
55	NC	—	Not used
56	CD SYNC	O	Auto CD Synchro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	—	Not used
65	Vss	—	GND
66	NC	—	Not used
67	Vcc	—	POWER 5 ± 0.5V
68	AVss	—	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	—	GND
71	—	—	
72	—	—	

[TEST MODE]

When making pin ③ low (connect pin ① of CN904 to ground with jumper wire), following function operates.

1. Source monitor

Release the line mute while recording.

• IC1501 TA Control (μ PD78042GF-056-3B9)

Pin No.	Pin Name	I/O	Function
1	7G	O	FL tube digit output
2	6G	O	
3	5G	O	
4	4G	O	
5	3G	O	
6	2G	O	
7	1G	O	
8	VDD	—	Power supply pin (+5V)
9	K3	I	Key scan input
10	K2	I	
11	K1	I	
12	DBS	O	Not used. (open)
13	SURROUND	O	
14	AUB OUT	O	Audio bus output
15	CLK (GEQ)	O	Serial clock line (IC1005 NJU7305L) output
16	DAT (GEQ)	O	Serial data line (IC1005 NJU7305L) output
17	RES	I	Reset. "L": reset
18	LINE MUT (OD)	O	Line mute output
19	MULTI (OD)	O	Multi plex ON/OFF. "L": on
20	AVss	I	Ground pin
21	*	I	Not used. (Connected to GND)
22	F7	I	Frequency for speana input
23	F6	I	
24	F5	I	
25	F4	I	
26	F3	I	
27	F2	I	
28	F1	I	
29	AVDD	—	Power supply pin (+5V)
30	AVREF	—	A/D reference voltage input
31	AUB IN	I	Audio bus input
32	*	—	Not used. (open)
33	Vss	—	Ground pin
34	X1	I	Connected to system clock (4.19 MHz) oscillator.
35	X2	O	
36	FNC-A	O	Function LED control output
37	FNC-B	O	
38	FNC-G	O	
39	SEL-A	O	Selection LED control output
40	SEL-B	O	

Pin No.	Pin Name	I/O	Function
41	SEL-G	O	Selection LED control output
42	MULTI	O	Multi plex LED output
43	VOL LED	O	Volume LED output
44	VOL UP	O	Volume up output
45	VOL DOWN	O	Volume down output
46	P FILE	O	P.file LED output
47	AC CUT IN	I	AC cut input
48	IC (Vss)	—	Not used. (Connected to GND)
49	C (OD)	O	} Function control output
50	B (OD)	O	
51	A (OD)	O	
52	VDD	—	Power supply pin (+5V)
53	MEMORY	O	Memory LED output
54	EFFECT	O	Equalizer LED output
55	#5	O	#5 LED output
56	SURROUND	I	Not used. (Connected to GND)
57	CS (GEQ)	O	CS line (IC1005 NJU7305L) output
58	(INPUT)	I	Not used. (Connected to GND)
59	S15	O	} FL tube segment output
60	S14	O	
61	S13	O	
62	S12	O	} FL tube segment output (key scan output)
63	S11	O	
64	S10	O	
65	S9	O	
66	S8	O	
67	S7	O	
68	S6	O	
69	S5	O	} FL tube segment output
70	S4	O	
71	V LOAD	—	Power supply pin (–33V) for pull down register
72	S3	O	} FL tube segment output
73	S2	O	
74	S1	O	
75	13G	O	} FL digit output
76	12G	O	
77	11G	O	
78	10G	O	
79	9G	O	
80	8G	O	

SECTION 6

EXPLODED VIEWS

NOTE:

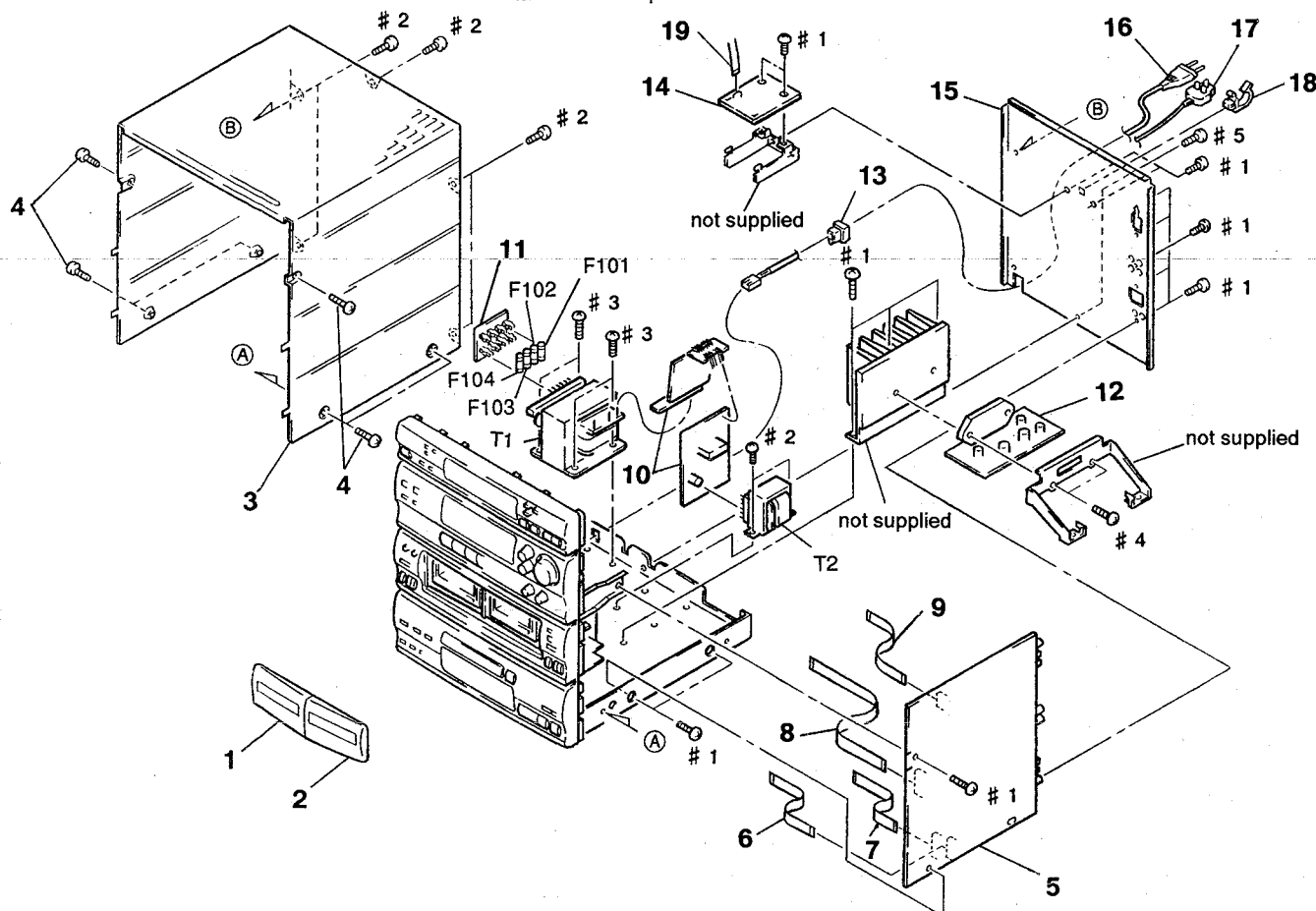
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) ... (RED)

↑ ↑
Parts color Cabinet's color

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- G : German model
- IT : Italian model
- EE : East European model

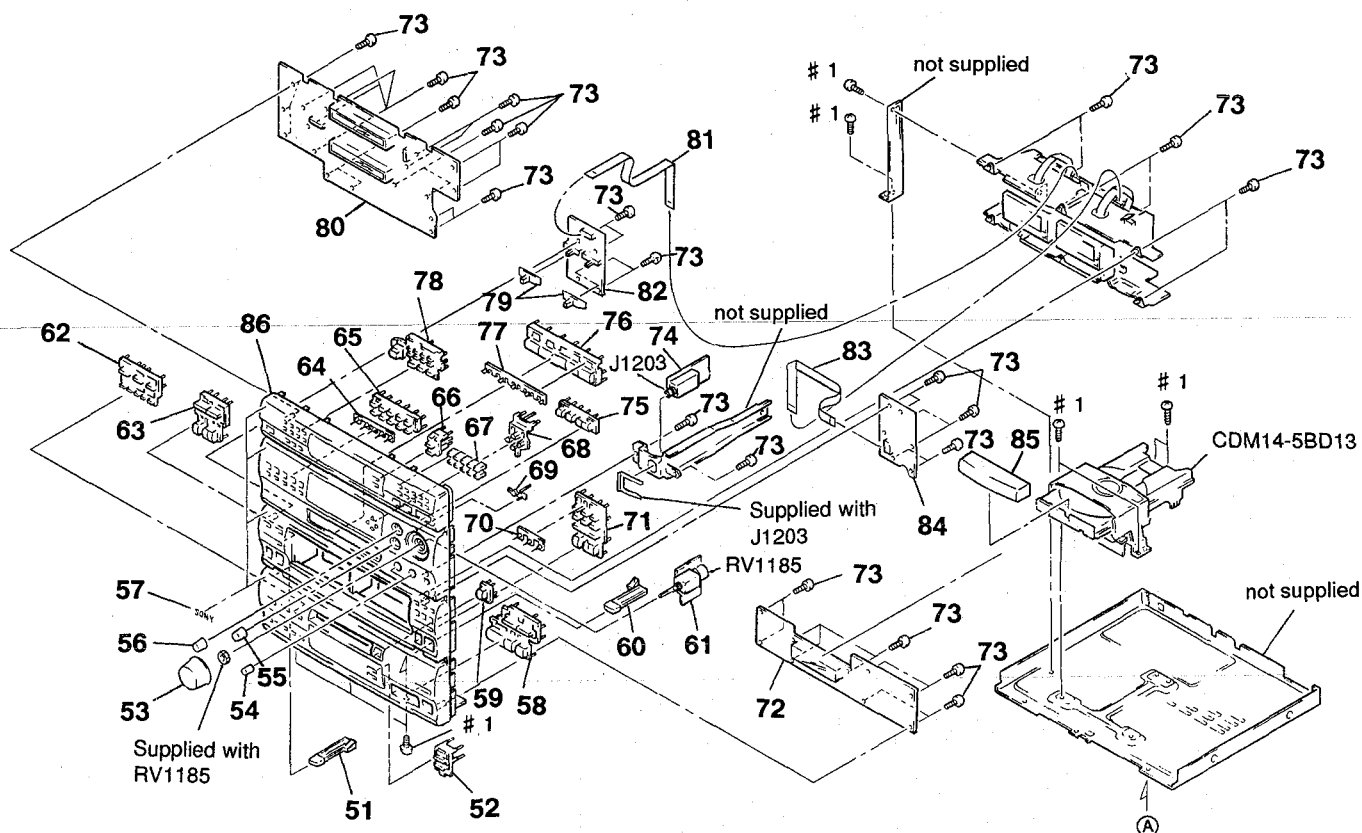
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

6-1. CABINET SECTION



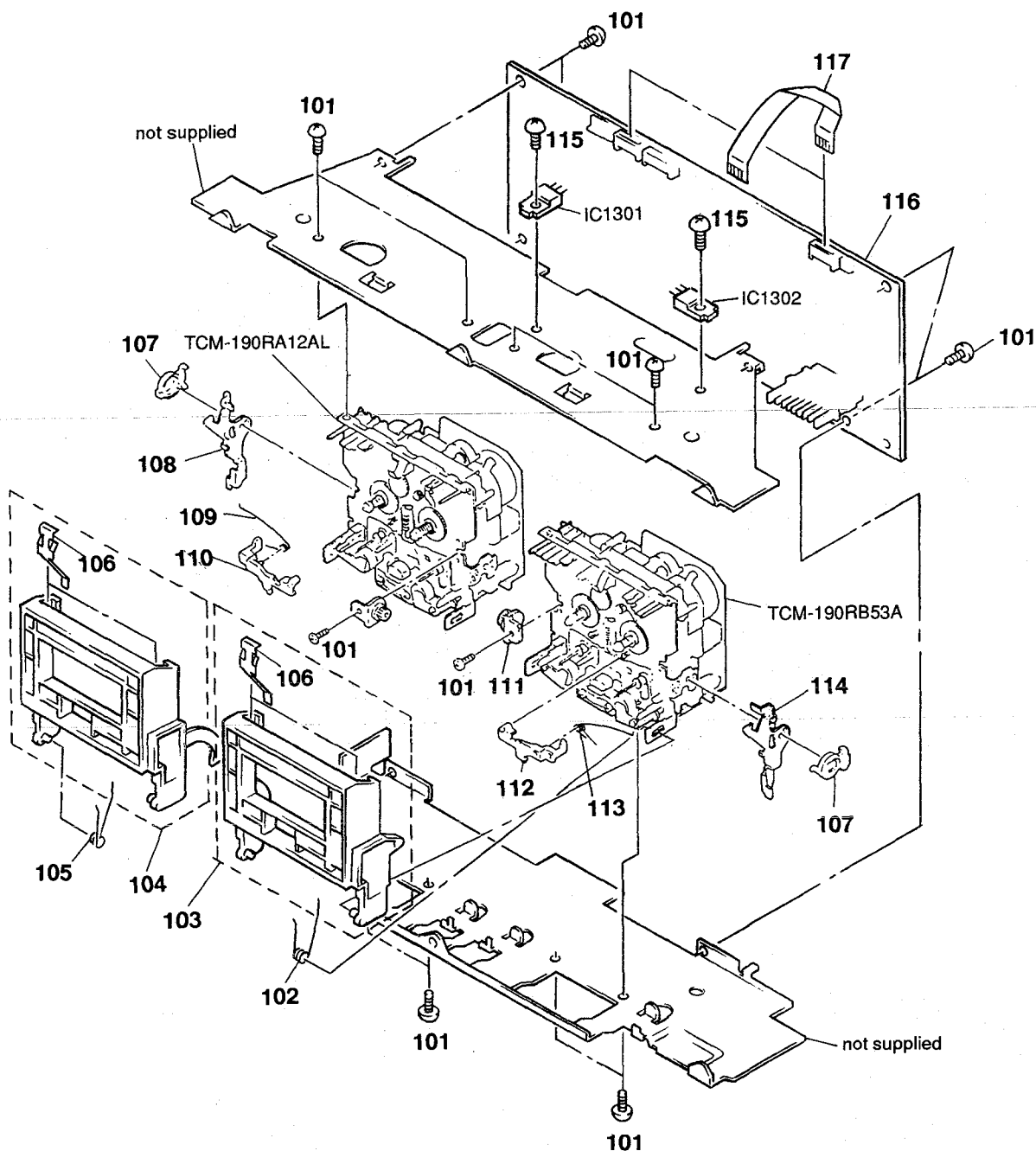
Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	A-4353-635-A	LID (A) ASSY, CASSETTE		* 12	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS)	
2	A-4353-636-A	LID (B) ASSY, CASSETTE		* 12	A-4369-305-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 3	4-962-725-31	CASE		* 13	3-703-244-00	BUSHING (2104), CORD	
4	3-363-099-01	SCREW (CASE 3 TP2)		* 14	A-4369-815-A	POLAR BOARD, COMPLETE (CIS)	
* 5	A-4369-161-A	MAIN BOARD, COMPLETE (UK)					
* 5	A-4369-300-A	MAIN BOARD, COMPLETE (AEP)		* 15	4-962-744-11	PANEL, BACK (AEP)	
* 5	A-4369-306-A	MAIN BOARD, COMPLETE (IT)		* 15	4-962-744-41	PANEL, BACK (G)	
* 5	A-4369-311-A	MAIN BOARD, COMPLETE (EE)		* 15	4-962-744-51	PANEL, BACK (IT)	
* 5	A-4369-901-A	MAIN BOARD, COMPLETE (G)		* 15	4-962-744-71	PANEL, BACK (UK)	
* 5	A-4369-905-A	MAIN BOARD, COMPLETE (CIS)		* 15	4-962-744-61	PANEL, BACK (EE, CIS)	
6	1-765-176-11	WIRE (FLAT TYPE) (26 CORE)		16	1-575-651-11	CORD, POWER (AEP, G, IT, EE, CIS)	
* 7	1-696-674-11	WIRE (FLAT TYPE) (23 CORE)		17	1-696-570-21	CORD, POWER (UK)	
8	1-690-824-11	WIRE (FLAT TYPE) (25 CORE)		* 18	4-949-235-11	HOOK	
9	1-575-906-11	WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)		19	1-690-590-31	WIRE (FLAT TYPE) (13 CORE) (CIS)	
9	1-590-459-11	WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)		F101	1-532-286-00	FUSE (T2. 5A)	
* 10	A-4369-159-A	POWER BOARD, COMPLETE (UK)		F102	1-532-286-00	FUSE (T2. 5A)	
* 10	A-4369-172-A	POWER BOARD, COMPLETE (AEP, G, IT)		F103	1-532-299-00	FUSE (T5. 0A)	
* 10	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS)		F104	1-532-299-00	FUSE (T5. 0A)	
* 11	1-652-388-11	FUSE BOARD (AEP, G, IT)		T1	1-423-927-11	TRANSFORMER, POWER (AEP, G, IT, EE, CIS)	
* 11	1-652-389-11	FUSE BOARD (UK, EE, CIS)		T1	1-426-782-11	TRANSFORMER, POWER (UK)	
* 12	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK)		T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, G, IT)	
				T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)	

6-2. FRONT PANEL SECTION



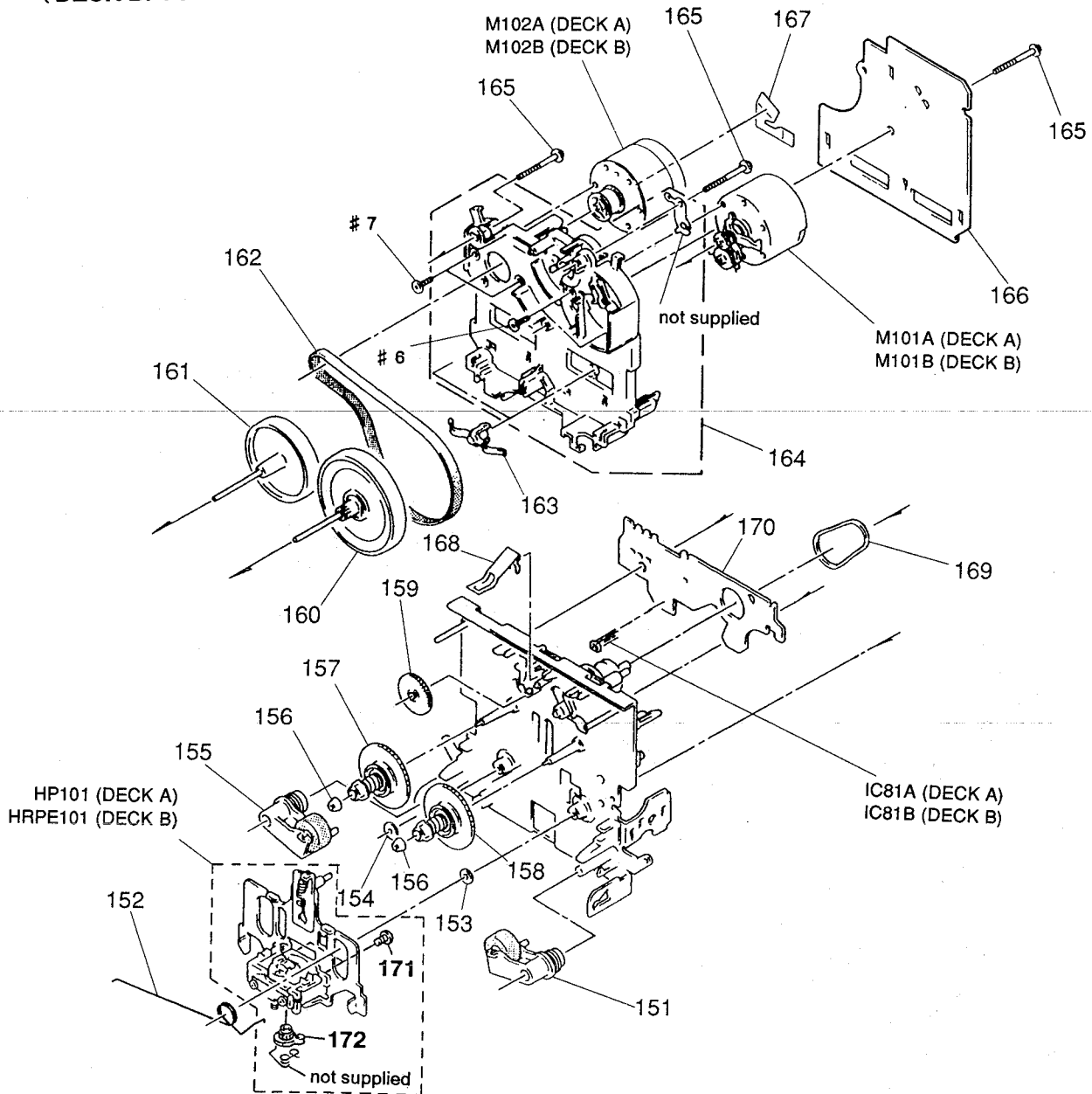
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-962-709-01	BUTTON (EJECT) (L)		* 72	A-4369-167-A	CD PANEL BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
52	4-962-694-01	BUTTON (CC)		73	4-951-620-01	SCREW (2.6X8), +BVTP	
53	4-955-635-11	KNOB (V)		* 74	1-651-166-11	H.P. BOARD	
54	4-955-744-01	KNOB (BA)		75	4-962-661-11	BUTTON (BAND)	
55	4-962-703-11	KNOB (SUR)		76	4-962-681-11	BUTTON (FU)	
56	4-962-703-41	KNOB (SUR)		77	4-962-680-11	INDICATOR (FU)	
57	4-962-708-21	EMBLEM (4-A), SONY		78	4-962-689-01	BUTTON (TIMER)	
58	4-962-667-31	BUTTON (CD)		79	4-962-707-01	KNOB, SLIDE	
59	4-962-665-11	BUTTON (OPEN)		* 80	A-4369-156-A	PANEL BOARD, COMPLETE (UK)	
60	4-962-710-01	BUTTON (EJECT) (R)		* 80	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)	
* 61	1-651-167-11	VR BOARD		* 80	A-4369-303-A	PANEL BOARD, COMPLETE (IT)	
62	4-962-693-01	BUTTON (PROG)		* 80	A-4369-309-A	PANEL BOARD, COMPLETE (EE)	
63	X-4944-378-1	DECK ASSY, BUTTON (A)		* 80	A-4369-899-A	PANEL BOARD, COMPLETE (G)	
64	4-962-677-11	INDICATOR (SELECT 5)		* 80	A-4369-903-A	PANEL BOARD, COMPLETE (CIS)	
65	X-4944-523-1	BUTTON (EFFECT) ASSY		81	1-751-025-11	WIRE (FLAT TYPE) (9 CORE)	
66	4-962-690-01	BUTTON (RDS) (AEP, G, IT)		* 82	1-650-780-11	PANEL (A) BOARD	
67	4-962-676-11	BUTTON (PRESET)		83	1-751-210-11	WIRE (FLAT TYPE) (13 CORE)	
68	4-962-692-01	BUTTON (CURSOR)		* 84	1-650-781-11	PANEL (B) BOARD	
69	4-962-682-11	INDICATOR (VO)		85	4-962-674-11	PANEL, LOADING	
70	4-962-766-01	INDICATOR (DUB)		86	X-4944-681-1	PANEL ASSY, FRONT (UK, EE, CIS)	
71	X-4944-522-1	DECK ASSY, BUTTON (B)		86	X-4944-682-1	PANEL ASSY, FRONT (AEP, IT, G)	
* 72	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)					

6-3. MECHANISM DECK CHASSIS SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
101	4-928-635-01	SCREW, +BV (2.6X8) TAPPING		111	3-354-963-01	DAMPER	
102	3-354-960-01	SPRING (LOADING R), TORSION		112	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
103	A-4325-164-A	HOLDER (R) ASSY, CASSETTE		113	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
104	A-4325-163-A	HOLDER (L) ASSY, CASSETTE		* 114	3-354-954-01	LEVER (LOCK LEVER R)	
105	3-354-959-01	SPRING (LOADING L), TORSION		115	4-951-620-01	SCREW (2.6X8), +BVTP	
106	3-308-823-11	DETENT, CASSETTE		* 116	A-4365-942-A	MAIN TC BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
107	3-354-957-01	JOINT (LOCK LEVER)		* 116	A-4369-150-A	MAIN TC BOARD, COMPLETE (UK)	
* 108	3-354-953-01	LEVER (LOCK LEVER L)		117	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
109	3-354-961-01	SPRING (EJ SAFTY SPRING L)		IC1301	8-759-604-84	IC M5F7806L	
110	3-354-955-01	LEVER (EJ SAFTY LEVER L)		IC1302	8-759-604-90	IC M5F7907L	

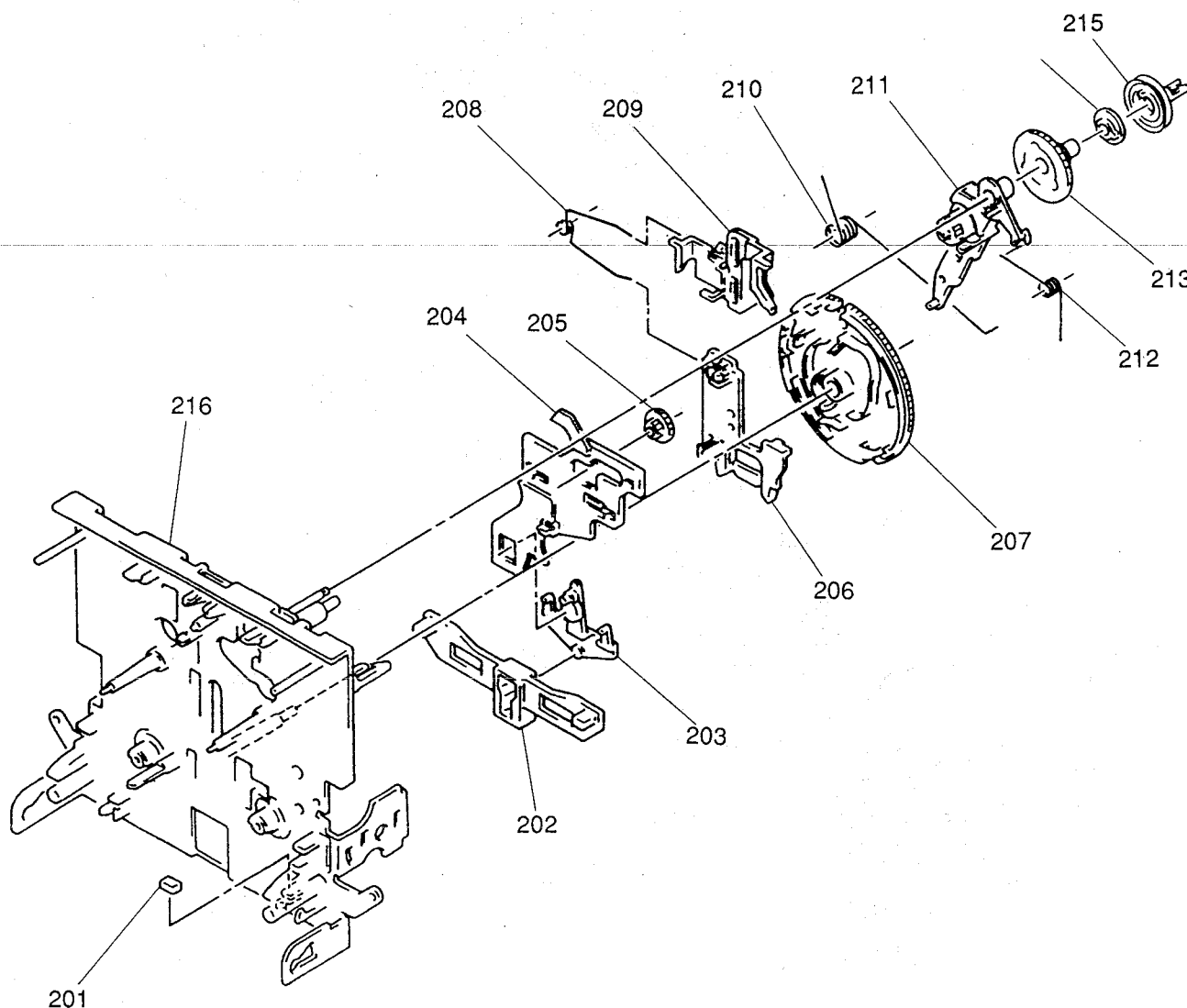
6-4. MECHANISM DECK SECTION-1
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



Ref.No.	Part No.	Description	Remark
151	X-3366-047-1	LEVER (PINCH F) ASSY	
152	3-907-362-01	SPRING, TORSION	
153	3-356-713-01	WASHER	
154	3-356-714-01	WASHER	
155	X-3366-048-1	LEVER (PINCH R) ASSY	
156	3-913-841-01	CAP (REEL)	
157	X-3366-971-1	TABLE ASSY (B), REEL	
158	X-3366-970-1	TABLE ASSY, REEL	
159	3-359-424-01	GEAR (REV GEAR)	
160	X-3367-629-1	FLYWHEEL (FWD) ASSY	
161	X-3367-630-2	FLYWHEEL (REV) ASSY	
162	3-359-417-01	BELT (FLAT), CAPSTAN	
163	3-575-321-00	RETAINER, THRUST, CAPSTAN	
164	3-359-436-11	BASE (THRUST RETAINER), FITTING	
165	3-359-414-01	SCREW (+PTPWH 2X23)	
* 166	A-2006-623-A	MD-A BOARD, COMPLETE (RA12AL)	

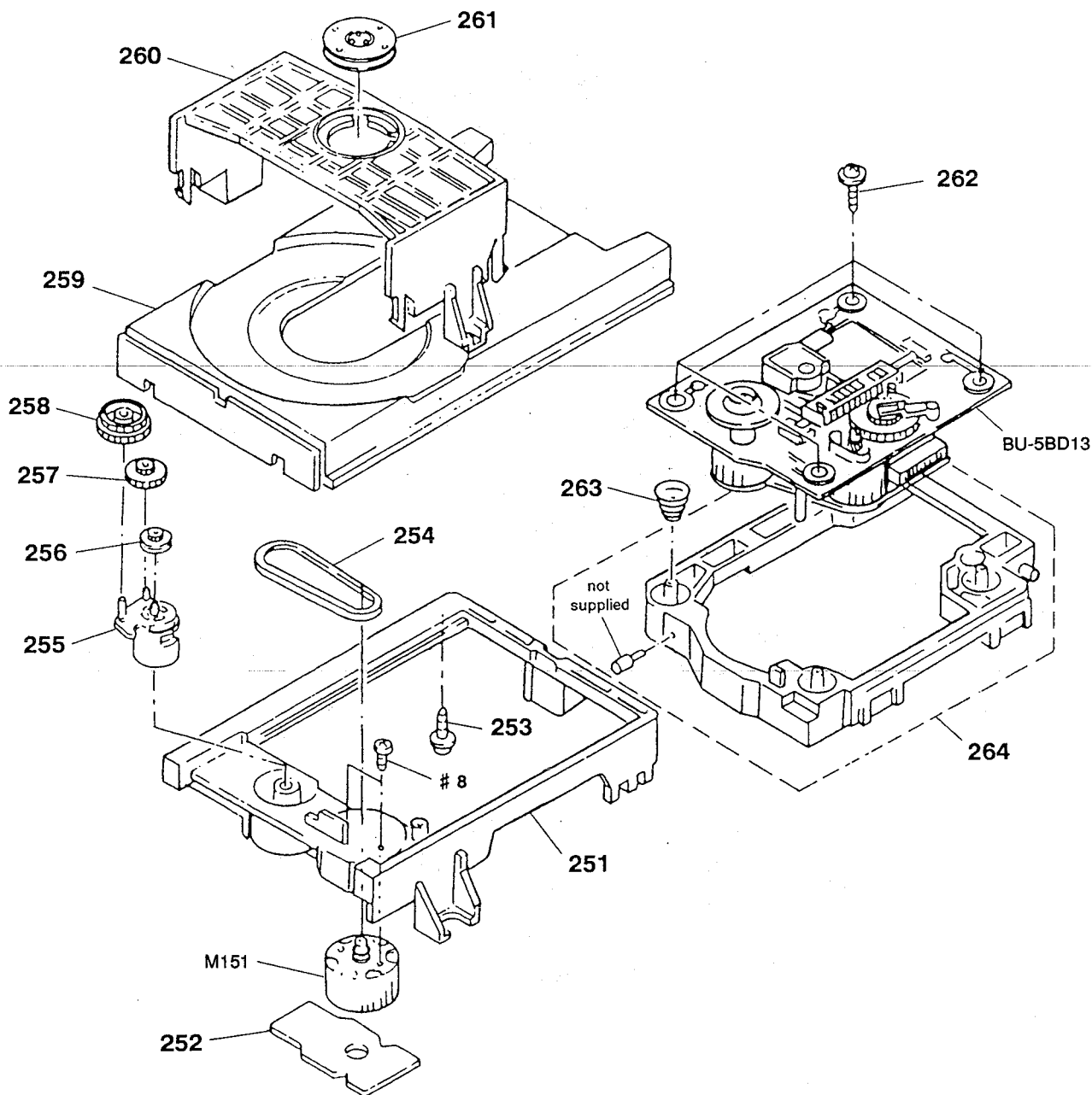
Ref.No.	Part No.	Description	Remark
* 166	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)	
167	1-638-983-11	MOTOR FLEXIBLE BOARD	
168	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
169	3-359-466-01	BELT (FR), SQUARE	
* 170	1-638-020-11	LEAF SW-A BOARD (DECK A)	
* 170	1-638-020-11	LEAF SW-A BOARD (DECK B)	
171	3-388-848-01	SCREW (P2X6) (B TIGHT)	
172	3-359-405-11	GEAR (CENTER)	
HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRPE101A	2003-930-A	BASE ASSY, HEAD (DECK B)	
IC81A	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK A)	
IC81B	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK B)	
M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	

6-5. MECHANISM DECK SECTION-2
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-359-469-01	SPACER		209	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
* 202	3-359-425-01	SLIDER (REVERSE SLIDER)		210	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
203	3-359-426-01	LEVER (REVERSE LEVER)		211	X-3366-569-1	ARM ASSY, FR	
* 204	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)		212	3-359-453-01	SPRING (FR ARM), TORSION	
204	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)		213	3-359-419-11	GEAR (FR GEAR)	
205	3-359-448-01	GEAR (TRIGGER)		214	3-359-421-11	CLUTCH (REEL DISK)	
* 206	3-359-427-01	SLIDER (LEVERSE SLIDER)		215	3-359-418-11	PULLEY (FR PULLEY)	
207	3-359-420-01	GEAR (CAM GEAR)		216	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
208	3-359-454-01	SPRING, TORSION		216	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	
209	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)					

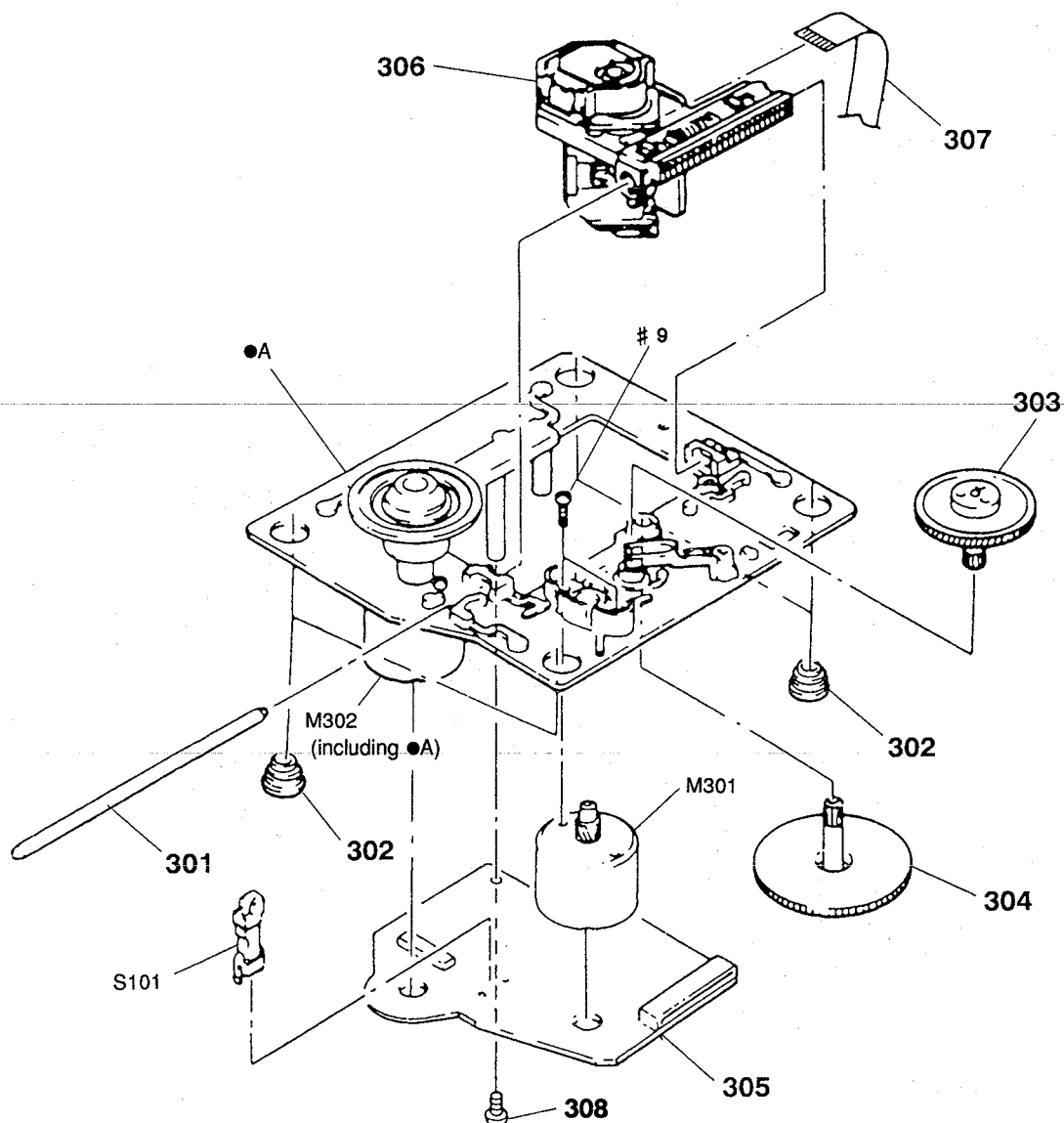
6-6. CD MECHANISM SECTION
(CDM14-5BD13)






Ref. No.	Part No.	Description
251	4-933-111-01	CHASSIS (MD)
* 252	1-645-721-11	LOADING BOARD
* 253	4-917-583-21	BRACKET, YOKE
254	4-927-649-01	BELT
255	4-933-109-01	CAM
256	4-927-651-01	PULLEY (S)
257	4-927-628-01	GEAR (C)
258	4-933-107-01	GEAR (PL)

Remark	Ref. No.	Part No.	Description	Remark
	259	4-933-112-01	TABLE, DISK	
	260	4-933-110-01	HOLDER (MG)	
	* 261	1-452-538-11	MAGNET	
	262	4-933-134-01	SCREW (+PTWH M2.6X6)	
	263	4-959-996-01	SPRING (932), COMPRESSION	
	264	4-933-129-01	HOLDER (BU)	
	M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	

6-7. OPTICAL PICK-UP BLOCK SECTION (BU-5BD13)



The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	4-917-565-01	SHAFT, SLED		307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
302	4-951-940-01	INSULATOR (BU)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
303	4-917-567-01	GEAR (M)		M301	X-4917-523-4	MOTOR ASSY (SPINDLE)	
304	4-917-564-01	GEAR (P), FLATNESS		M302	X-4917-504-1	MOTOR ASSY (SLED)	
* 305	A-4673-064-A	BD BOARD, COMPLETE		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
 306	8-848-144-11	OPTICAL PICK-UP BLOCK (KSS-240A)					

SECTION 7

ELECTRICAL PARTS LIST

BD

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) ... (RED)

↑
Parts color
↑
Cabinet's color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- G : German model
- IT : Italian model
- EE : East European model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-064-A	BD BOARD, COMPLETE *****				< CONNECTOR >	
		< CAPACITOR >		* CN101	1-580-875-11	SOCKET, CONNECTOR (SMT) 26P	
				CN102	1-565-771-11	CONNECTOR, FPC (1.0MM) (ZIF) 12P	
						< IC >	
C101	1-163-005-11	CERAMIC CHIP 470PF 10% 50V		IC101	8-752-361-90	IC CXD2515Q	
C102	1-163-038-00	CERAMIC CHIP 0.1uF 25V		IC102	8-759-176-09	IC BA6392FP	
C103	1-163-005-11	CERAMIC CHIP 470PF 10% 50V		IC103	8-752-367-61	IC CXD2565AM	
C105	1-135-155-21	TANTALUM CHIP 4.7uF 10% 16V				< COIL >	
C106	1-164-346-11	CERAMIC CHIP 1uF 16V					
				L101	1-414-234-11	INDUCTOR, FERRITE BEAD	
C107	1-164-505-11	CERAMIC CHIP 2.2uF 16V		L102	1-414-234-11	INDUCTOR, FERRITE BEAD	
C108	1-163-035-00	CERAMIC CHIP 0.047uF 50V		L103	1-414-234-11	INDUCTOR, FERRITE BEAD	
C109	1-163-011-11	CERAMIC CHIP 0.0015uF 10% 50V		L104	1-216-001-00	METAL CHIP 10 5% 1/10W	
C110	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V		L105	1-216-295-00	METAL CHIP 0 5% 1/10W	
C111	1-163-251-11	CERAMIC CHIP 100PF 5% 50V					
				L106	1-414-234-11	INDUCTOR, FERRITE BEAD	
C112	1-163-038-00	CERAMIC CHIP 0.1uF 25V		L107	1-216-295-00	METAL CHIP 0 5% 1/10W	
C113	1-163-038-00	CERAMIC CHIP 0.1uF 25V		L108	1-216-295-00	METAL CHIP 0 5% 1/10W	
C123	1-164-232-11	CERAMIC CHIP 0.01uF 50V				< MOTOR >	
C124	1-164-005-11	CERAMIC CHIP 0.47uF 25V		M301	X-4917-523-3	MOTOR ASSY (SPINDLE)	
C131	1-163-038-00	CERAMIC CHIP 0.1uF 25V		M302	X-4917-504-1	MOTOR ASSY (SLED)	
						< RESISTOR >	
C132	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R101	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C133	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R102	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C153	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R103	1-216-077-00	METAL CHIP 15K 5% 1/10W	
C159	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V		R104	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C161	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R105	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
				R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C177	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R107	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C178	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R108	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C179	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R109	1-216-121-00	METAL CHIP 1M 5% 1/10W	
C181	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R110	1-216-025-00	METAL CHIP 100 5% 1/10W	
C182	1-163-038-00	CERAMIC CHIP 0.1uF 25V					
				R112	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C183	1-135-156-21	TANTALUM CHIP 6.8uF 10% 10V		R122	1-216-295-00	METAL CHIP 0 5% 1/10W	
C184	1-135-156-21	TANTALUM CHIP 6.8uF 10% 10V		R123	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C185	1-135-156-21	TANTALUM CHIP 6.8uF 10% 10V		R124	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C186	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R125	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C187	1-163-038-00	CERAMIC CHIP 0.1uF 25V					
				R126	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C188	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R127	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C191	1-163-091-00	CERAMIC CHIP 8PF 50V					
C192	1-163-091-00	CERAMIC CHIP 8PF 50V					
C193	1-163-125-00	CERAMIC CHIP 220PF 5% 50V					
C194	1-163-125-00	CERAMIC CHIP 220PF 5% 50V					
C195	1-163-038-00	CERAMIC CHIP 0.1uF 25V					
C196	1-163-005-11	CERAMIC CHIP 470PF 10% 50V					
C197	1-163-038-00	CERAMIC CHIP 0.1uF 25V					

BD CD PANEL

Ref. No.	Part No.	Description	Remark
R131	1-216-037-00	METAL CHIP 330 5% 1/10W	
R158	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R159	1-216-101-00	METAL CHIP 150K 5% 1/10W	
R181	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R182	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R183	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R184	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R185	1-216-080-00	METAL CHIP 20K 5% 1/10W	
R187	1-216-035-00	METAL CHIP 270 5% 1/10W	
R188	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R189	1-414-234-11	INDUCTOR, FERRITE BEAD	
< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
< VIBRATOR >			
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)	

*	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)	

*	A-4369-167-A	CD PANEL BOARD, COMPLETE	

		(AEP, IT, G, EE, CIS)	
*	4-949-935-21	CUSHION (FL)	
*	4-955-816-01	HOLDER (1F), FL TUBE	
< CAPACITOR >			
C201	1-161-494-00	CERAMIC 0.022uF 25V	
C202	1-164-159-11	CERAMIC 0.1uF 50V	
C203	1-164-159-11	CERAMIC 0.1uF 50V	
C204	1-124-903-11	ELECT 1uF 20% 50V	
C205	1-124-903-11	ELECT 1uF 20% 50V	
C206	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C207	1-162-294-31	CERAMIC 0.001uF 10% 50V	
< CONNECTOR >			
* CN201	1-568-839-11	SOCKET, CONNECTOR 23P	
< FLUORESCENT INDICATOR >			
FLD201	1-517-297-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC201	8-752-852-17	IC CXP82316-035Q	
< TRANSISTOR >			
Q201	8-729-900-80	TRANSISTOR DTC114ES	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R201	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R202	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R203	1-249-417-11	CARBON 1K 5% 1/4W F	
R204	1-249-417-11	CARBON 1K 5% 1/4W F	
R205	1-249-417-11	CARBON 1K 5% 1/4W F	
R206	1-249-441-11	CARBON 100K 5% 1/4W	
R207	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R208	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R209	1-247-836-11	CARBON 1.6K 5% 1/4W	
R210	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R211	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R212	1-249-426-11	CARBON 5.6K 5% 1/4W	
R213	1-247-856-00	CARBON 11K 5% 1/4W	
R214	1-249-435-11	CARBON 33K 5% 1/4W	
R215	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R216	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R217	1-247-836-11	CARBON 1.6K 5% 1/4W	
R218	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R219	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R220	1-249-426-11	CARBON 5.6K 5% 1/4W	
R221	1-247-856-00	CARBON 11K 5% 1/4W	
R222	1-249-435-11	CARBON 33K 5% 1/4W	
R223	1-249-417-11	CARBON 1K 5% 1/4W F	
R224	1-249-417-11	CARBON 1K 5% 1/4W F	
R225	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R226	1-249-417-11	CARBON 1K 5% 1/4W F	
R227	1-249-417-11	CARBON 1K 5% 1/4W F	
R228	1-249-417-11	CARBON 1K 5% 1/4W F	
R229	1-249-417-11	CARBON 1K 5% 1/4W F	
< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S203	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S204	1-554-303-21	SWITCH, TACTILE (TIME)	
S205	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S206	1-554-303-21	SWITCH, TACTILE (FADE)	
S207	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
S208	1-554-303-21	SWITCH, TACTILE (EDIT)	
S209	1-554-303-21	SWITCH, TACTILE (CHECK)	
S210	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S211	1-554-303-21	SWITCH, TACTILE (▷)	
S212	1-554-303-21	SWITCH, TACTILE (■)	
S213	1-554-303-21	SWITCH, TACTILE (■)	
S214	1-554-303-21	SWITCH, TACTILE (▶▶ ▶▶▶)	
S215	1-554-303-21	SWITCH, TACTILE (◀◀ ◀◀◀)	
S216	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)	

CD PANEL

FUSE

H.P

LEAF SW-A

LEAF SW-B

LOADING

Ref.No.	Part No.	Description	Remark
		< VIBRATOR >	
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

*	1-652-388-11	FUSE BOARD (AEP, IT, G)	

*	1-652-389-11	FUSE BOARD (UK, EE, CIS)	

		< FUSE >	
△F101	1-532-286-00	FUSE, TIME-LAG (T2. 5A)	
△F102	1-532-286-00	FUSE, TIME-LAG (T2. 5A)	
△F103	1-532-299-00	FUSE, TIME-LAG (T5. 0A)	
△F104	1-532-299-00	FUSE, TIME-LAG (T5. 0A)	

*	1-651-166-11	H. P BOARD	

		< CAPACITOR >	
C1237	1-162-282-31	CERAMIC 100PF 10% 50V (IT, G)	
C1238	1-162-282-31	CERAMIC 100PF 10% 50V (IT, G)	
		< JACK >	
J1203	1-569-113-11	JACK, LARGE TYPE (HEADPHONES)	

*	1-638-020-11	LEAF SW-A BOARD (RA12AL)	

		< CONNECTOR >	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P	
		< IC >	
IC81A	8-749-924-10	PHOTO REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R84	1-249-417-11	CARBON 1K 5% 1/4W F	
R85	1-249-408-11	CARBON 180 5% 1/4W F	
		< SWITCH >	
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82A	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S86A	1-571-281-21	SWITCH, LEAF (HALF DET)	

Ref.No.	Part No.	Description	Remark
*	1-638-020-11	LEAF SW-B BOARD (RB53A)	

		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81B	8-749-924-10	IC PHOTO REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R81	1-249-414-11	CARBON 560 5% 1/4W F	
R82	1-247-818-91	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W F	
R85	1-249-408-11	CARBON 180 5% 1/4W F	
		< SWITCH >	
S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82B	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE A)	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE B)	
S86B	1-571-281-21	SWITCH, LEAF (HALF DET)	

	1-645-721-11	LOADING BOARD	

		< CONNECTOR >	
* CN151	1-568-943-11	PIN, CONNECTOR 5P	
		< MOTOR >	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
		< SWITCH >	
S151	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S152	1-572-086-11	SWITCH, LEAF (LOAD IN)	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4369-161-A	MAIN BOARD, COMPLETE (UK) *****		C25	1-161-327-00	CERAMIC 0.0033uF 30% 16V	
*	A-4369-306-A	MAIN BOARD, COMPLETE (IT) *****		C26	1-124-477-11	ELECT 47uF 20% 25V	
*	A-4369-300-A	MAIN BOARD, COMPLETE (AEP) *****		C27	1-126-962-11	ELECT 3.3uF 20% 50V	
*	A-4369-311-A	MAIN BOARD, COMPLETE (EE) *****		C28	1-161-494-00	CERAMIC 0.022uF 25V	
*	A-4369-901-A	MAIN BOARD, COMPLETE (G) *****		C29	1-124-907-11	ELECT 10uF 20% 50V	
*	A-4369-905-A	MAIN BOARD, COMPLETE (CIS) *****		C30	1-161-494-00	CERAMIC 0.022uF 25V	
				C31	1-101-005-00	CERAMIC 22000PF 50V	
				C32	1-162-196-31	CERAMIC 5.6PF 10% 50V	(AEP, UK, EE, CIS)
				C32	1-162-198-31	CERAMIC 8.2PF 10% 50V (IT, G)	
				C33	1-161-379-00	CERAMIC 0.01uF 20% 25V	
				C34	1-164-159-11	CERAMIC 0.1uF 50V	(AEP, UK, EE, CIS)
				C37	1-161-374-11	CERAMIC 0.0015uF 20% 50V	(AEP, UK, EE, CIS)
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		C38	1-102-120-00	CERAMIC 0.0018uF 10% 50V	(AEP, UK, EE, CIS)
	7-682-547-09	SCREW +BVTT 3X6 (S)		C39	1-101-005-00	CERAMIC 22000PF 50V	(AEP, UK, EE, CIS)
	< CAPACITOR >			C45	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1	1-161-379-00	CERAMIC 0.01uF 20% 25V		C46	1-162-294-31	CERAMIC 0.001uF 10% 50V (AEP)	
C2	1-124-477-11	ELECT 47uF 20% 25V		C51	1-102-961-00	CERAMIC 27PF 5% 50V	
C3	1-161-379-00	CERAMIC 0.01uF 20% 25V		C52	1-102-961-00	CERAMIC 27PF 5% 50V	
C4	1-164-159-11	CERAMIC 0.1uF 50V		C53	1-124-477-11	ELECT 47uF 20% 25V	
C5	1-161-379-00	CERAMIC 0.01uF 20% 25V (CIS)		C54	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C5	1-164-159-11	CERAMIC 0.1uF 50V	(EXCEPT CIS)	C55	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C6	1-161-379-00	CERAMIC 0.01uF 20% 25V		C56	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C7	1-126-934-11	ELECT 220uF 20% 16V		C57	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C8	1-161-379-00	CERAMIC 0.01uF 20% 25V		C58	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C9	1-161-379-00	CERAMIC 0.01uF 20% 25V		C61	1-124-925-11	ELECT 2.2uF 20% 100V	
C10	1-161-379-00	CERAMIC 0.01uF 20% 25V		C62	1-124-463-00	ELECT 0.1uF 20% 50V	
C11	1-124-907-11	ELECT 10uF 20% 50V		C63	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C12	1-124-902-00	ELECT 0.47uF 20% 50V		C64	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C13	1-124-903-11	ELECT 1uF 20% 50V		C65	1-124-120-11	ELECT 220uF 20% 25V (UK)	
C14	1-124-903-11	ELECT 1uF 20% 50V		C65	1-126-934-11	ELECT 220uF 20% 16V	(AEP, IT, G, EE, CIS)
C15	1-124-907-11	ELECT 10uF 20% 50V		C67	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C16	1-124-907-11	ELECT 10uF 20% 50V		C71	1-136-173-00	FILM 0.47uF 5% 50V	(AEP, UK, EE, CIS)
C17	1-124-907-11	ELECT 10uF 20% 50V		C72	1-161-494-00	CERAMIC 0.022uF 25V	(AEP, UK, EE, CIS)
C18	1-124-907-11	ELECT 10uF 20% 50V		C73	1-124-463-00	ELECT 0.1uF 20% 50V	(AEP, UK, EE, CIS)
C19	1-136-158-00	FILM 0.027uF 5% 50V	(AEP, UK, EE, CIS)	C81	1-162-291-31	CERAMIC 560PF 10% 50V (AEP, IT, G)	
C19	1-136-159-00	FILM 0.033uF 5% 50V (IT, G)		C82	1-124-907-11	ELECT 10uF 20% 50V (AEP, IT, G)	
C20	1-136-158-00	FILM 0.027uF 5% 50V	(AEP, UK, EE, CIS)	C83	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	
C20	1-136-159-00	FILM 0.033uF 5% 50V (IT, G)		C84	1-124-925-11	ELECT 2.2uF 20% 100V (AEP, IT, G)	
C21	1-161-046-00	CERAMIC 0.0039uF 10% 25V		C85	1-162-288-31	CERAMIC 330PF 10% 50V (AEP, IT, G)	
C22	1-161-046-00	CERAMIC 0.0039uF 10% 25V		C86	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	
C23	1-124-903-11	ELECT 1uF 20% 50V		C87	1-162-291-31	CERAMIC 560PF 10% 50V (AEP, IT, G)	
C24	1-161-374-11	CERAMIC 0.0015uF 20% 50V (IT, G)		C88	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	
C24	1-162-294-31	CERAMIC 0.001uF 10% 50V	(AEP, UK, EE, CIS)				

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
C89	1-101-880-00	CERAMIC	47PF	5%	50V	(AEP, IT, G)	C1027	1-137-375-11	FILM	0.068uF	5%	50V	
C90	1-102-527-11	CERAMIC	82PF	5%	50V	(AEP, IT, G)	C1028	1-124-903-11	ELECT	1uF	20%	50V	
C91	1-161-379-00	CERAMIC	0.01uF	20%	25V	(AEP, IT, G)	C1029	1-137-441-11	FILM	0.027uF	5%	50V	
C92	1-124-907-11	ELECT	10uF	20%	50V	(AEP, IT, G)	C1030	1-124-902-00	ELECT	0.47uF	20%	50V	
C93	1-124-907-11	ELECT	10uF	20%	50V	(AEP, IT, G)	C1031	1-137-370-11	FILM	0.01uF	5%	50V	
C95	1-124-903-11	ELECT	1uF	20%	50V	(CIS)	C1032	1-136-168-00	FILM	0.18uF	5%	50V	
C96	1-124-903-11	ELECT	1uF	20%	50V	(CIS)	C1033	1-137-436-11	FILM	0.0039uF	5%	50V	
C301	1-124-477-11	ELECT	47uF	20%	25V		C1034	1-137-375-11	FILM	0.068uF	5%	50V	
C302	1-124-477-11	ELECT	47uF	20%	25V		C1035	1-137-434-11	FILM	0.0018uF	5%	50V	
C303	1-124-927-11	ELECT	4.7uF	20%	100V		C1036	1-130-489-00	MYLAR	0.033uF	5%	50V	
C304	1-126-176-11	ELECT	220uF	20%	10V		C1037	1-137-363-91	FILM	680PF	5%	50V	
C305	1-124-472-11	ELECT	470uF	20%	10V		C1038	1-137-439-91	FILM	0.012uF	5%	50V	
C306	1-124-902-00	ELECT	0.47uF	20%	50V		C1039	1-137-429-11	FILM	270PF	5%	50V	
C308	1-124-907-11	ELECT	10uF	20%	50V		C1040	1-137-368-11	FILM	0.0047uF	5%	50V	
C309	1-124-443-00	ELECT	100uF	20%	10V		C1041	1-124-907-11	ELECT	10uF	20%	50V	
C310	1-164-159-11	CERAMIC	0.1uF		50V		C1042	1-164-159-11	CERAMIC	0.1uF		50V	
C311	1-164-159-11	CERAMIC	0.1uF		50V		C1045	1-164-159-11	CERAMIC	0.1uF		50V	
C312	1-164-159-11	CERAMIC	0.1uF		50V		C1046	1-164-159-11	CERAMIC	0.1uF		50V	
C313	1-161-379-00	CERAMIC	0.01uF	20%	25V		C1047	1-164-159-11	CERAMIC	0.1uF		50V	
C314	1-161-494-00	CERAMIC	0.022uF		25V		C1048	1-164-159-11	CERAMIC	0.1uF		50V	
C317	1-162-284-31	CERAMIC	150PF	10%	50V		C1049	1-164-159-11	CERAMIC	0.1uF		50V	
C318	1-162-284-31	CERAMIC	150PF	10%	50V		C1050	1-164-159-11	CERAMIC	0.1uF		50V	
C319	1-162-284-31	CERAMIC	150PF	10%	50V		C1051	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)
C320	1-162-284-31	CERAMIC	150PF	10%	50V		C1052	1-124-925-11	ELECT	2.2uF	20%	100V	
C321	1-137-437-11	FILM	0.0056uF	5%	50V		C1053	1-162-282-31	CERAMIC	100PF	10%	50V	
C322	1-137-437-11	FILM	0.0056uF	5%	50V		C1058	1-124-477-11	ELECT	47uF	20%	25V	(IT, G)
C323	1-137-364-11	FILM	0.001uF	5%	50V		C1061	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)
C324	1-137-364-11	FILM	0.001uF	5%	50V		C1063	1-162-282-31	CERAMIC	100PF	10%	50V	
C325	1-124-477-11	ELECT	47uF	20%	25V		C1064	1-124-482-11	ELECT	33uF	20%	35V	(EE, CIS)
C326	1-124-477-11	ELECT	47uF	20%	25V		C1064	1-124-927-11	ELECT	4.7uF	20%	100V	(AEP, UK, IT, G)
C329	1-164-159-11	CERAMIC	0.1uF		50V		C1065	1-161-377-00	CERAMIC	0.0047uF	30%	16V	
C330	1-124-927-11	ELECT	4.7uF	20%	100V		C1066	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C331	1-124-126-00	ELECT	47uF	20%	10V		C1067	1-124-464-11	ELECT	0.22uF	20%	50V	
C1001	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)	C1069	1-164-159-11	CERAMIC	0.1uF		50V	
C1002	1-124-925-11	ELECT	2.2uF	20%	100V		C1071	1-164-159-11	CERAMIC	0.1uF		50V	
C1003	1-162-282-31	CERAMIC	100PF	10%	50V		C1072	1-126-176-11	ELECT	220uF	20%	10V	
C1008	1-124-477-11	ELECT	47uF	20%	25V	(IT, G)	C1073	1-124-443-00	ELECT	100uF	20%	10V	
C1011	1-162-288-31	CERAMIC	330PF	10%	50V	(IT, G)	C1074	1-124-443-00	ELECT	100uF	20%	10V	
C1013	1-162-282-31	CERAMIC	100PF	10%	50V		C1076	1-137-364-11	FILM	0.001uF	5%	50V	
C1014	1-124-482-11	ELECT	33uF	20%	35V	(EE, CIS)	C1077	1-137-375-11	FILM	0.068uF	5%	50V	
C1014	1-124-927-11	ELECT	4.7uF	20%	100V	(AEP, UK, IT, G)	C1078	1-124-903-11	ELECT	1uF	20%	50V	
C1015	1-161-377-00	CERAMIC	0.0047uF	30%	16V		C1079	1-137-441-11	FILM	0.027uF	5%	50V	
C1016	1-161-374-11	CERAMIC	0.0015uF	20%	50V		C1080	1-124-902-00	ELECT	0.47uF	20%	50V	
C1017	1-124-464-11	ELECT	0.22uF	20%	50V		C1081	1-137-370-11	FILM	0.01uF	5%	50V	
C1019	1-164-159-11	CERAMIC	0.1uF		50V		C1082	1-136-168-00	FILM	0.18uF	5%	50V	
C1021	1-164-159-11	CERAMIC	0.1uF		50V		C1083	1-137-436-11	FILM	0.0039uF	5%	50V	
C1022	1-126-176-11	ELECT	220uF	20%	10V		C1084	1-137-375-11	FILM	0.068uF	5%	50V	
C1023	1-124-443-00	ELECT	100uF	20%	10V		C1085	1-137-434-11	FILM	0.0018uF	5%	50V	
C1024	1-124-443-00	ELECT	100uF	20%	10V		C1086	1-130-489-00	MYLAR	0.033uF	5%	50V	
C1026	1-137-364-11	FILM	0.001uF	5%	50V		C1087	1-137-363-91	FILM	680PF	5%	50V	

MAIN

* CN1 1-568-834-11 SOCKET, CONNECTOR 15P (AEP, IT, G)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D1337	8-719-987-63	DIODE 1N4148M				< COIL >	
D1341	8-719-987-63	DIODE 1N4148M		L1	1-407-500-00	INDUCTOR 4.7mH	
D1342	8-719-987-63	DIODE 1N4148M		L2	1-410-524-41	INDUCTOR 220uH (AEP, UK, EE, CIS)	
D1343	8-719-987-63	DIODE 1N4148M		L81	1-410-521-11	INDUCTOR 100uH (AEP, IT, G)	
D1371	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L301	1-410-322-11	INDUCTOR 3.3uH	
D1372	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L302	1-410-322-11	INDUCTOR 3.3uH	
D1373	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L1301	1-420-872-00	COIL, AIR-CORE	
D1374	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L1351	1-420-872-00	COIL, AIR-CORE	
D1375	8-719-001-43	DIODE UZL-11M1				< FILTER >	
		< FRONTEND >		LPF1	1-239-597-11	FILTER, LOW PASS	
FE1	1-465-007-11	FRONT END (4 GANG) (IT, G)		LPF2	1-239-597-11	FILTER, LOW PASS	
FE1	1-693-090-31	FRONT END (FM) (2 GANG) (AEP, UK)				< TRANSISTOR >	
FE1	1-693-244-11	FRONT END (3 GANG) (EE, CIS)		Q1	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
FE2	1-239-260-11	ENCAPSULATED COMPONENT (IT, G)		Q2	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4 (IT, G)	
FE2	1-239-261-12	ENCAPSULATED COMPONENT (AEP, UK, EE, CIS)		Q3	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS)	
FE3	1-236-463-11	ENCAPSULATED COMPONENT (AEP, UK, EE, CIS)		Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS)	
		< IC >		Q5	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC1	8-759-176-03	IC LA1835		Q6	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC51	8-759-175-87	IC LC7218-ST		Q7	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC81	8-759-145-58	IC UPC4558C (AEP, IT, G)		Q8	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC82	8-759-169-99	IC SAA6579 (AEP, IT, G)		Q55	8-729-900-61	TRANSISTOR DTA114ES	
IC83	8-759-062-26	IC LC7073 (AEP, IT, G)		Q61	8-729-202-67	TRANSISTOR 2SK246-GR3	
IC301	8-759-061-65	IC LA5602		Q62	8-729-201-84	TRANSISTOR 2SC3112-B	
IC302	8-759-805-37	IC L78LR05D		Q71	8-729-202-67	TRANSISTOR 2SK246-GR3 (AEP, UK, EE, CIS)	
IC304	8-759-822-09	IC LB1641		Q72	8-729-201-84	TRANSISTOR 2SC3112-B (AEP, UK, EE, CIS)	
IC305	8-759-145-58	IC UPC4558C		Q301	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC306	8-759-145-58	IC UPC4558C		Q302	8-729-900-65	TRANSISTOR DTA144ES	
IC307	8-759-605-00	IC M5F78M07L		Q303	8-729-900-65	TRANSISTOR DTA144ES	
IC1001	8-759-634-51	IC M5218AP		Q1031	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC1002	8-759-000-48	IC MC14052BCP		Q1081	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC1003	8-759-140-53	IC UPD4053BC		Q1341	8-729-900-63	TRANSISTOR DTA124ES	
IC1004	8-759-634-51	IC M5218AP		Q1370	8-729-900-36	TRANSISTOR DTC124ES (AEP, IT, G)	
IC1005	8-759-081-01	IC NJU7305L		Q1371	8-729-209-15	TRANSISTOR 2SD2012	
IC1006	8-759-633-78	IC M5289P				< RESISTOR >	
IC1056	8-759-633-78	IC M5289P		R1	1-249-411-11	CARBON 330 5% 1/4W	
IC1301	8-759-605-00	IC M5F78M07L		R2	1-249-411-11	CARBON 330 5% 1/4W	
IC1302	8-759-604-95	IC M5F79M07L		R3	1-249-409-11	CARBON 220 5% 1/4W F	
IC1303	8-759-604-84	IC M5F7806L		△R4	1-249-402-11	CARBON 56 5% 1/4W F	
IC1304	8-759-604-39	IC M5F78M12 (AEP, UK, IT, G)		R5	1-247-891-00	CARBON 330K 5% 1/4W	
IC1341	8-759-111-68	IC UPC1237HA		R6	1-249-411-11	CARBON 330 5% 1/4W	
		< IFT >		R7	1-247-891-00	CARBON 330K 5% 1/4W (IT, G)	
IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)		R8	1-249-411-11	CARBON 330 5% 1/4W (IT, G)	
		< JACK >		△R9	1-249-405-11	CARBON 100 5% 1/4W F	
* J1001	1-580-912-11	JACK, PIN 4P (PHONO/VIDEO)		R10	1-249-437-11	CARBON 47K 5% 1/4W	
J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)		R12	1-249-429-11	CARBON 10K 5% 1/4W	
				R13	1-249-442-11	CARBON 510 5% 1/4W	

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△R14	1-249-403-11	CARBON	68 5% 1/4W F	R69	1-247-807-31	CARBON	100 5% 1/4W
R16	1-249-429-11	CARBON	10K 5% 1/4W	R71	1-249-423-11	CARBON	3.3K 5% 1/4W F (AEP, UK, EE, CIS)
R17	1-247-842-11	CARBON	3K 5% 1/4W	R72	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)
R18	1-249-429-11	CARBON	10K 5% 1/4W	R73	1-249-414-11	CARBON	560 5% 1/4W F (AEP, UK, EE, CIS)
R19	1-249-441-11	CARBON	100K 5% 1/4W	R74	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, UK, EE, CIS)
R20	1-249-435-11	CARBON	33K 5% 1/4W	R75	1-249-410-11	CARBON	270 5% 1/4W F (AEP, UK, EE, CIS)
R21	1-249-441-11	CARBON	100K 5% 1/4W	R76	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, UK, EE, CIS)
R22	1-249-437-11	CARBON	47K 5% 1/4W	R77	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)
R23	1-249-399-11	CARBON	33 5% 1/4W F	R78	1-247-807-31	CARBON	100 5% 1/4 (AEP, UK, EE, CIS)
R24	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)	R81	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R25	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R82	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R26	1-249-429-11	CARBON	10K 5% 1/4W	R83	1-249-433-11	CARBON	22K 5% 1/4W (AEP, IT, G)
R27	1-249-429-11	CARBON	10K 5% 1/4W	R84	1-249-426-11	CARBON	5.6K 5% 1/4W (AEP, IT, G)
R30	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R85	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, IT, G)
R31	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R86	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G)
R32	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)	R301	1-249-429-11	CARBON	10K 5% 1/4W
R33	1-247-903-00	CARBON	1M 5% 1/4W (AEP, UK, EE, CIS)	R302	1-249-429-11	CARBON	10K 5% 1/4W
R34	1-249-437-11	CARBON	47K 5% 1/4W (AEP, UK, EE, CIS)	R318	1-249-417-11	CARBON	1K 5% 1/4W F
R35	1-249-423-11	CARBON	3.3K 5% 1/4W F	R319	1-249-417-11	CARBON	1K 5% 1/4W F
R36	1-249-423-11	CARBON	3.3K 5% 1/4W F	R320	1-247-852-11	CARBON	7.5K 5% 1/4W
R45	1-249-426-11	CARBON	5.6K 5% 1/4W	R321	1-247-852-11	CARBON	7.5K 5% 1/4W
R46	1-249-426-11	CARBON	5.6K 5% 1/4W	R322	1-247-852-11	CARBON	7.5K 5% 1/4W
R47	1-249-408-11	CARBON	180 5% 1/4W F (AEP, IT, G)	R323	1-247-852-11	CARBON	7.5K 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W F (UK, EE)	R324	1-249-431-11	CARBON	15K 5% 1/4W
R48	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G, CIS)	R325	1-249-431-11	CARBON	15K 5% 1/4W
R49	1-249-423-11	CARBON	3.3K 5% 1/4W F	R326	1-249-431-11	CARBON	15K 5% 1/4W
△R50	1-249-401-11	CARBON	47 5% 1/4W F	R327	1-249-431-11	CARBON	15K 5% 1/4W
R51	1-249-417-11	CARBON	1K 5% 1/4W F	R328	1-249-419-11	CARBON	1.5K 5% 1/4W F
R52	1-249-417-11	CARBON	1K 5% 1/4W F	R329	1-249-419-11	CARBON	1.5K 5% 1/4W F
R53	1-249-417-11	CARBON	1K 5% 1/4W F	R330	1-249-419-11	CARBON	1.5K 5% 1/4W F
R54	1-249-417-11	CARBON	1K 5% 1/4W F	R331	1-249-419-11	CARBON	1.5K 5% 1/4W F
R56	1-249-425-11	CARBON	4.7K 5% 1/4W F	R332	1-249-441-11	CARBON	100K 5% 1/4W
R57	1-249-417-11	CARBON	1K 5% 1/4W F	R333	1-249-441-11	CARBON	100K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W F	R336	1-249-418-11	CARBON	1.2K 5% 1/4W F
△R60	1-249-405-11	CARBON	100 5% 1/4W F	R337	1-249-418-11	CARBON	1.2K 5% 1/4W F
R61	1-249-423-11	CARBON	3.3K 5% 1/4W F	R338	1-249-417-11	CARBON	1K 5% 1/4W F
R62	1-249-425-11	CARBON	4.7K 5% 1/4W F	R339	1-249-429-11	CARBON	10K 5% 1/4W
R63	1-249-414-11	CARBON	560 5% 1/4W F	R1001	1-249-417-11	CARBON	1K 5% 1/4W F
R64	1-249-417-11	CARBON	1K 5% 1/4W F	R1002	1-247-903-00	CARBON	1M 5% 1/4W
R65	1-249-410-11	CARBON	270 5% 1/4W F	R1008	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)
R66	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1011	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)
R67	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1012	1-249-417-11	CARBON	1K 5% 1/4W F
R68	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1013	1-249-437-11	CARBON	47K 5% 1/4W
				R1014	1-249-416-11	CARBON	820 5% 1/4W F

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1015	1-247-897-11	CARBON	560K 5% 1/4W	R1344	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1016	1-249-437-11	CARBON	47K 5% 1/4W	R1345	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1017	1-249-409-11	CARBON	220 5% 1/4W F	R1346	1-249-438-11	CARBON	56K 5% 1/4W
R1018	1-249-441-11	CARBON	100K 5% 1/4W	R1347	1-249-437-11	CARBON	47K 5% 1/4W
R1021	1-249-437-11	CARBON	47K 5% 1/4W	R1348	1-249-429-11	CARBON	10K 5% 1/4W
R1023	1-249-437-11	CARBON	47K 5% 1/4W	R1349	1-249-429-11	CARBON	10K 5% 1/4W
R1024	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1363	1-249-389-11	CARBON	4.7 5% 1/4W F
R1025	1-249-441-11	CARBON	100K 5% 1/4W	R1364	1-249-389-11	CARBON	4.7 5% 1/4W F
R1026	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1370	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, IT, G)
R1031	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, G, IT)	R1371	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1036	1-247-852-11	CARBON	7.5K 5% 1/4W	△R1380	1-215-890-11	METAL OXIDE	470 5% 2W F (UK)
R1038	1-249-425-11	CARBON	4.7K 5% 1/4W F	△R1380	1-215-891-11	METAL OXIDE	680 5% 2W F (AEP, IT, G, EE, CIS)
R1039	1-249-441-11	CARBON	100K 5% 1/4W	R1381	1-249-410-11	CARBON	270 5% 1/4W F
R1040	1-247-889-00	CARBON	270K 5% 1/4W	R1382	1-249-410-11	CARBON	270 5% 1/4W F
R1041	1-249-433-11	CARBON	22K 5% 1/4W	R1383	1-249-410-11	CARBON	270 5% 1/4W F
R1042	1-249-433-11	CARBON	22K 5% 1/4W	R1384	1-249-410-11	CARBON	270 5% 1/4W F
R1043	1-249-433-11	CARBON	22K 5% 1/4W	R1385	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1044	1-249-433-11	CARBON	22K 5% 1/4W	R1386	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1045	1-249-413-11	CARBON	470 5% 1/4W F	< VARIABLE RESISTOR >			
R1046	1-249-413-11	CARBON	470 5% 1/4W F	RV1	1-238-601-11	RES, ADJ, CARBON	22K
R1047	1-249-413-11	CARBON	470 5% 1/4W F	RV2	1-238-600-11	RES, ADJ, CARBON	10K
R1048	1-249-429-11	CARBON	10K 5% 1/4W	< RELAY >			
R1051	1-249-417-11	CARBON	1K 5% 1/4W F	RY1201	1-515-920-11	RELAY (24V)	
R1052	1-247-903-00	CARBON	1M 5% 1/4W	< TRANSFORMER >			
R1058	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)	T1	1-235-126-00	ENCAPSULATED COMPONENT (IT, G)	
R1061	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)	< TERMINAL >			
R1062	1-249-417-11	CARBON	1K 5% 1/4W F	* TM1	1-537-264-11	TERMINAL BOARD (ANTENNA) (UK)	
R1063	1-249-437-11	CARBON	47K 5% 1/4W	* TM1	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (ANTENNA) (AEP, IT, G, EE, CIS)	
R1064	1-249-416-11	CARBON	820 5% 1/4W F	* TM1301	1-537-327-11	TERMINAL BOARD (SPEAKER)	
R1065	1-247-897-11	CARBON	560K 5% 1/4W	< VIBRATOR >			
R1066	1-249-437-11	CARBON	47K 5% 1/4W	X1	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz) (AEP, IT, G)	
R1067	1-249-409-11	CARBON	220 5% 1/4W F	X2	1-577-358-21	VIBRATOR, CERAMIC (4MHz) (AEP, IT, G)	
R1068	1-249-441-11	CARBON	100K 5% 1/4W	XT51	1-577-126-31	VIBRATOR, CRYSTAL (7.2MHz)	
R1071	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R1073	1-249-437-11	CARBON	47K 5% 1/4W				
R1074	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R1075	1-249-441-11	CARBON	100K 5% 1/4W				
R1076	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R1086	1-247-852-11	CARBON	7.5K 5% 1/4W				
R1088	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R1089	1-249-441-11	CARBON	100K 5% 1/4W				
R1090	1-247-889-00	CARBON	270K 5% 1/4W				
R1313	1-249-389-11	CARBON	4.7 5% 1/4W F				
R1314	1-249-389-11	CARBON	4.7 5% 1/4W F				
R1335	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)				
R1336	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)				
R1341	1-249-429-11	CARBON	10K 5% 1/4W				
R1342	1-249-441-11	CARBON	100K 5% 1/4W				
R1343	1-249-436-11	CARBON	39K 5% 1/4W				

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Replace only with part number specified.

MAIN TC

Ref. No.	Part No.	Description	Remark
*	A-4365-150-A	MAIN TC BOARD, COMPLETE (UK) *****	
*	A-4365-942-A	MAIN TC BOARD, COMPLETE(AEP, IT, G, EE, CIS) *****	
*	4-942-204-01	PLATE, GROUND < CAPACITOR >	
C722	1-137-368-11	FILM 0.0047uF 5% 50V	
C723	1-162-291-31	CERAMIC 560PF 10% 50V	
C726	1-137-399-11	FILM 0.1uF 5% 50V	
C727	1-126-791-11	ELECT 10uF 20% 35V	
C728	1-124-903-11	ELECT 1uF 20% 50V	
C729	1-124-465-00	ELECT 0.47uF 20% 50V	
C730	1-124-907-11	ELECT 10uF 20% 50V	
C731	1-164-159-11	CERAMIC 0.1uF 50V	
C732	1-126-791-11	ELECT 10uF 20% 35V	
C741	1-124-903-11	ELECT 1uF 20% 50V	
C742	1-126-791-11	ELECT 10uF 20% 35V	
C822	1-137-368-11	FILM 0.0047uF 5% 50V	
C823	1-162-291-31	CERAMIC 560PF 10% 50V	
C826	1-137-399-11	FILM 0.1uF 5% 50V	
C827	1-124-907-11	ELECT 10uF 20% 50V	
C828	1-124-903-11	ELECT 1uF 20% 50V	
C829	1-124-902-00	ELECT 0.47uF 20% 50V	
C830	1-124-907-11	ELECT 10uF 20% 50V	
C831	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C832	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C833	1-124-902-00	ELECT 0.47uF 20% 50V	
C841	1-124-903-11	ELECT 1uF 20% 50V	
C842	1-124-907-11	ELECT 10uF 20% 50V	
C901	1-124-443-00	ELECT 100uF 20% 10V	
C902	1-124-471-00	ELECT 1000uF 20% 6.3V	
C903	1-124-443-00	ELECT 100uF 20% 10V	
C910	1-124-907-11	ELECT 10uF 20% 50V	
C911	1-124-907-11	ELECT 10uF 20% 50V	
C912	1-124-120-11	ELECT 220uF 20% 25V	
C914	1-124-584-00	ELECT 100uF 20% 10V	
C916	1-124-443-00	ELECT 100uF 20% 10V	
C917	1-124-443-00	ELECT 100uF 20% 10V	
C918	1-124-443-00	ELECT 100uF 20% 10V	
C956	1-162-290-31	CERAMIC 470PF 10% 50V	
C957	1-162-290-31	CERAMIC 470PF 10% 50V	
C958	1-164-159-11	CERAMIC 0.1uF 50V	
C959	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN901	1-568-945-11	PIN, CONNECTOR 7P	
CN902	1-764-342-11	PIN, CONNECTOR (PCB) (L TYPE) 5P	
CN904	1-764-339-11	PIN, CONNECTOR (PCB) (L TYPE) 2P	

Ref. No.	Part No.	Description	Remark
CN905	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN906	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN907	1-580-783-11	CONNECTOR, BOARD TO BOARD	
* CN908	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN909	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN910	1-568-852-11	SOCKET, CONNECTOR 9P	
* CN911	1-568-856-11	SOCKET, CONNECTOR 13P	
* CN912	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
		< DIODE >	
D901	8-719-987-63	DIODE 1N4148M	
D902	8-719-987-63	DIODE 1N4148M	
D903	8-719-987-63	DIODE 1N4148M	
D904	8-719-987-63	DIODE 1N4148M	
D905	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC901	8-759-098-75	IC HA12171NT	
IC902	8-759-250-60	IC M50964-261FP	
IC903	8-759-635-63	IC M51943BSL	
IC904	8-759-266-35	IC TA8242K	
		< TRANSISTOR >	
Q701	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q801	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q901	8-729-900-65	TRANSISTOR DTA144ES	
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q903	8-729-900-89	TRANSISTOR DTC144ES	
Q904	8-729-900-65	TRANSISTOR DTA144ES	
Q905	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q906	8-729-116-56	TRANSISTOR 2SB1068-L	
Q907	8-729-116-56	TRANSISTOR 2SB1068-L	
Q908	8-729-900-65	TRANSISTOR DTA144ES	
Q909	8-729-900-89	TRANSISTOR DTC144ES	
Q910	8-729-900-65	TRANSISTOR DTA144ES	
		< RESISTOR >	
R720	1-215-451-00	METAL 18K 1% 1/6W	
R721	1-249-430-11	CARBON 12K 5% 1/4W	
R722	1-249-431-11	CARBON 15K 5% 1/4W	
R723	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R724	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R725	1-249-429-11	CARBON 10K 5% 1/4W	
R727	1-249-429-11	CARBON 10K 5% 1/4W	
R730	1-249-429-11	CARBON 10K 5% 1/4W	
R731	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R732	1-249-429-11	CARBON 10K 5% 1/4W	
R733	1-249-429-11	CARBON 10K 5% 1/4W	
R734	1-249-429-11	CARBON 10K 5% 1/4W	
R735	1-247-864-11	CARBON 24K 5% 1/4W	

MAIN TC
MD-A

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R736	1-249-429-11	CARBON	10K 5% 1/4W	R937	1-249-429-11	CARBON	10K 5% 1/4W
R737	1-249-429-11	CARBON	10K 5% 1/4W	R938	1-249-429-11	CARBON	10K 5% 1/4W
R738	1-249-429-11	CARBON	10K 5% 1/4W	R939	1-249-429-11	CARBON	10K 5% 1/4W
R741	1-249-421-11	CARBON	2.2K 5% 1/4W F	R940	1-249-429-11	CARBON	10K 5% 1/4W
R742	1-249-428-11	CARBON	8.2K 5% 1/4W F	R941	1-249-429-11	CARBON	10K 5% 1/4W
R743	1-247-840-00	CARBON	2.4K 5% 1/4W	R942	1-249-441-11	CARBON	100K 5% 1/4W
R744	1-249-433-11	CARBON	22K 5% 1/4W	R943	1-249-441-11	CARBON	100K 5% 1/4W
R745	1-249-417-11	CARBON	1K 5% 1/4W F	R958	1-247-807-31	CARBON	100 5% 1/4W
R821	1-249-430-11	CARBON	12K 5% 1/4W	R959	1-249-381-11	CARBON	1 5% 1/4W F
R822	1-249-431-11	CARBON	15K 5% 1/4W	R960	1-249-381-11	CARBON	1 5% 1/4W F
R823	1-249-425-11	CARBON	4.7K 5% 1/4W F	R968	1-247-807-31	CARBON	100 5% 1/4W
R824	1-249-428-11	CARBON	8.2K 5% 1/4W F	R969	1-249-381-11	CARBON	1 5% 1/4W F
R825	1-247-882-11	CARBON	130K 5% 1/4W	R970	1-249-381-11	CARBON	1 5% 1/4W F
R826	1-247-866-11	CARBON	30K 5% 1/4W	R971	1-249-429-11	CARBON	10K 5% 1/4W
R829	1-249-429-11	CARBON	10K 5% 1/4W	R972	1-249-425-11	CARBON	4.7K 5% 1/4W F
R830	1-249-432-11	CARBON	18K 5% 1/4W	R973	1-249-434-11	CARBON	27K 5% 1/4W
R831	1-247-885-00	CARBON	180K 5% 1/4W	R974	1-249-429-11	CARBON	10K 5% 1/4W
R841	1-249-421-11	CARBON	2.2K 5% 1/4W F	R976	1-249-425-11	CARBON	4.7K 5% 1/4W F
R842	1-249-428-11	CARBON	8.2K 5% 1/4W F	R977	1-249-434-11	CARBON	27K 5% 1/4W
R843	1-247-840-00	CARBON	2.4K 5% 1/4W	< VARIABLE RESISTOR >			
R844	1-249-433-11	CARBON	22K 5% 1/4W	RV701	1-230-496-11	RES, ADJ, CARBON 10K	
R845	1-249-417-11	CARBON	1K 5% 1/4W F	RV801	1-230-496-11	RES, ADJ, CARBON 10K	
R901	1-247-807-31	CARBON	100 5% 1/4W	< VIBRATOR >			
R902	1-249-389-11	CARBON	4.7 5% 1/4W F	X901	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
R907	1-249-429-11	CARBON	10K 5% 1/4W	*****			
R908	1-247-903-00	CARBON	1M 5% 1/4W	* A-2006-623-A MD-A BOARD, COMPLETE (RA12AL)			
R909	1-247-895-00	CARBON	470K 5% 1/4W	*****			
R910	1-247-895-00	CARBON	470K 5% 1/4W	< CAPACITOR >			
R911	1-249-410-11	CARBON	270 5% 1/4W F	C11	1-163-131-00	CERAMIC CHIP	390PF 5% 50V
R912	1-249-410-11	CARBON	270 5% 1/4W F	C12	1-136-157-00	FILM	0.022uF 5% 50V
R914	1-249-411-11	CARBON	330 5% 1/4W	C13	1-124-234-00	ELECT	22uF 20% 16V
R915	1-249-411-11	CARBON	330 5% 1/4W	C18	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
R917	1-249-411-11	CARBON	330 5% 1/4W	C21	1-163-131-00	CERAMIC CHIP	390PF 5% 50V
R918	1-249-417-11	CARBON	1K 5% 1/4W F	C22	1-136-157-00	FILM	0.022uF 5% 50V
R919	1-249-429-11	CARBON	10K 5% 1/4W	C23	1-124-234-00	ELECT	22uF 20% 16V
R920	1-249-429-11	CARBON	10K 5% 1/4W	C28	1-163-117-00	CERAMIC CHIP	100PF 5% 50V
R921	1-249-421-11	CARBON	2.2K 5% 1/4W F	C31	1-124-234-00	ELECT	22uF 20% 16V
R922	1-249-421-11	CARBON	2.2K 5% 1/4W F	C32	1-124-234-00	ELECT	22uF 20% 16V
R923	1-249-429-11	CARBON	10K 5% 1/4W	C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V
R926	1-249-429-11	CARBON	10K 5% 1/4W	< CONNECTOR >			
R927	1-249-425-11	CARBON	4.7K 5% 1/4W F	* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
R928	1-249-429-11	CARBON	10K 5% 1/4W	* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
R929	1-249-415-11	CARBON	680 5% 1/4W F	* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P	
R930	1-249-414-11	CARBON	560 5% 1/4W F	* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
R931	1-249-415-11	CARBON	680 5% 1/4W F				
R932	1-249-429-11	CARBON	10K 5% 1/4W				
R933	1-249-415-11	CARBON	680 5% 1/4W F				
R934	1-249-429-11	CARBON	10K 5% 1/4W				
R935	1-249-415-11	CARBON	680 5% 1/4W F				
R936	1-249-429-11	CARBON	10K 5% 1/4W				

MD-A

MD-B

Ref. No.	Part No.	Description	Remark
< IC >			
IC31A	8-759-106-02	IC UPC4570G2	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW51	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW52	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW53	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW54	1-216-296-91	METAL GLAZE 0 5% 1/8W	
< TRANSISTOR >			
Q71A	8-729-216-22	TRANSISTOR 2SA1162-G	
< RESISTOR >			
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
< VARIABLE RESISTOR >			
RV11A	1-241-761-11	RES, ADJ, CARBON 1K	
RV21A	1-241-761-11	RES, ADJ, CARBON 1K	
RV71A	1-241-630-11	RES, ADJ, CARBON 10K	
RV72A	1-241-630-11	RES, ADJ, CARBON 10K	

*	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)	

< CAPACITOR >			
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C13	1-136-153-00	FILM 0.01uF 5% 50V	
C14	1-126-177-11	ELECT 100uF 20% 10V	
C15	1-124-234-00	ELECT 22uF 20% 16V	
C16	1-136-273-91	FILM 75PF 5% 630V	
C17	1-164-080-11	CERAMIC 390PF 10% 50V	
C18	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C22	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

Ref. No.	Part No.	Description	Remark
C23	1-136-153-00	FILM 0.01uF 5% 50V	
C24	1-126-177-11	ELECT 100uF 20% 10V	
C25	1-124-234-00	ELECT 22uF 20% 16V	
C26	1-136-273-91	FILM 75PF 5% 630V	
C27	1-164-080-11	CERAMIC 390PF 10% 50V	
C28	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C31	1-124-234-00	ELECT 22uF 20% 16V	
C32	1-124-234-00	ELECT 22uF 20% 16V	
C33	1-124-234-00	ELECT 22uF 20% 16V	
C51	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C52	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C53	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
C54	1-136-559-11	FILM 0.0047uF 5% 630V	
C56	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C57	1-164-346-11	CERAMIC CHIP 1uF 16V	
C58	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V	
C72	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V	
< CONNECTOR >			
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
< IC >			
IC31B	8-759-249-21	IC uPC1330GR	
IC32	8-759-106-02	IC UPC4570G2	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW11	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW12	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW13	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW14	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW15	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW16	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW17	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW18	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW19	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW20	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW21	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW22	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW23	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW24	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW25	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW26	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW27	1-216-296-91	METAL GLAZE 0 5% 1/8W	

MD-B

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< COIL >				*****			
L11	1-410-780-11	INDUCTOR 27mH		*	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)	
L21	1-410-780-11	INDUCTOR 27mH				*****	
< TRANSISTOR >				*	A-4369-303-A	PANEL BOARD, COMPLETE (IT)	
Q51	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2				*****	
Q52	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2		*	A-4369-899-A	PANEL BOARD, COMPLETE (G)	
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K				*****	
Q71B	8-729-216-22	TRANSISTOR 2SA1162-G		< CAPACITOR >			
< RESISTOR >				C601	1-124-442-00	ELECT 330uF 20% 6.3V	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W		C602	1-124-442-00	ELECT 330uF 20% 6.3V	
R12	1-216-033-00	METAL CHIP 220 5% 1/10W		C603	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R13	1-216-081-00	METAL CHIP 22K 5% 1/10W		C604	1-136-169-00	FILM 0.22uF 5% 50V	
R14	1-216-075-00	METAL CHIP 12K 5% 1/10W		C605	1-164-159-11	CERAMIC 0.1uF 50V	
R15	1-216-107-00	METAL CHIP 270K 5% 1/10W		C607	1-102-949-00	CERAMIC 12PF 5% 50V	
R16	1-249-430-11	CARBON 12K 5% 1/4W		C608	1-102-945-00	CERAMIC 8.0PF +-0.5PF 50V	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W		C609	1-164-159-11	CERAMIC 0.1uF 50V	
R22	1-216-033-00	METAL CHIP 220 5% 1/10W		C610	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R23	1-216-081-00	METAL CHIP 22K 5% 1/10W		C611	1-124-261-00	ELECT 10uF 20% 50V	
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W		C612	1-164-159-11	CERAMIC 0.1uF 50V	
R25	1-216-107-00	METAL CHIP 270K 5% 1/10W		C613	1-124-903-11	ELECT 1uF 20% 50V	
R26	1-249-430-11	CARBON 12K 5% 1/4W		C614	1-124-903-11	ELECT 1uF 20% 50V	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W		C615	1-164-159-11	CERAMIC 0.1uF 50V	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W		C1101	1-124-589-11	ELECT 47uF 20% 16V	
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W		C1102	1-162-219-31	CERAMIC 68PF 5% 50V	
R41	1-249-393-11	CARBON 10 5% 1/4W F		C1103	1-162-282-31	CERAMIC 100PF 10% 50V	
R42	1-249-393-11	CARBON 10 5% 1/4W F		C1104	1-126-157-11	ELECT 10uF 20% 16V	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W		C1106	1-124-252-00	ELECT 0.33uF 20% 50V	
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W		C1107	1-124-463-00	ELECT 0.1uF 20% 50V	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W		C1108	1-126-301-11	ELECT 1uF 20% 50V	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C1109	1-126-301-11	ELECT 1uF 20% 50V	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C1151	1-124-589-11	ELECT 47uF 20% 16V	
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W		C1152	1-162-219-31	CERAMIC 68PF 5% 50V	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W		C1153	1-162-282-31	CERAMIC 100PF 10% 50V	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W		C1154	1-126-157-11	ELECT 10uF 20% 16V	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W		C1156	1-124-252-00	ELECT 0.33uF 20% 50V	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W		C1157	1-124-463-00	ELECT 0.1uF 20% 50V	
< VARIABLE RESISTOR >				C1158	1-126-301-11	ELECT 1uF 20% 50V	
RV11B	1-241-761-11	RES, ADJ, CARBON 1K		C1159	1-126-301-11	ELECT 1uF 20% 50V	
RV12B	1-238-551-11	RES, ADJ, CARBON 220K		C1501	1-164-159-11	CERAMIC 0.1uF 50V	
RV21	1-241-761-11	RES, ADJ, CARBON 1K		C1502	1-164-159-11	CERAMIC 0.1uF 50V	
RV22	1-238-551-11	RES, ADJ, CARBON 220K		C1503	1-164-159-11	CERAMIC 0.1uF 50V	
RV71B	1-241-630-11	RES, ADJ, CARBON 10K		C1504	1-126-301-11	ELECT 1uF 20% 50V	
RV72B	1-241-630-11	RES, ADJ, CARBON 10K		C1505	1-126-301-11	ELECT 1uF 20% 50V	
< TRANSFORMER >				C1511	1-164-159-11	CERAMIC 0.1uF 50V	
T51	1-406-419-11	COIL, BIAS OSCILLATION		C1512	1-164-159-11	CERAMIC 0.1uF 50V	
				C1513	1-126-157-11	ELECT 10uF 20% 16V	
				C1514	1-126-177-11	ELECT 100uF 20% 10V	
				C1515	1-164-159-11	CERAMIC 0.1uF 50V	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C1516	1-164-159-11	CERAMIC	0.1uF 50V	D1560	8-719-046-46	DIODE SEL5221S-TH8C (DANCE 2)	
C1517	1-162-294-31	CERAMIC	0.001uF 10% 50V	D1561	8-719-046-46	DIODE SEL5221S-TH8C (VOCAL 3)	
C1531	1-126-157-11	ELECT	10uF 20% 16V	D1562	8-719-046-46	DIODE SEL5221S-TH8C (POPS 4)	
C1532	1-164-159-11	CERAMIC	0.1uF 50V	D1563	8-719-046-46	DIODE SEL5221S-TH8C (BGM 5)	
C1533	1-162-306-11	CERAMIC	0.01uF 20% 16V	D1564	8-719-046-46	DIODE SEL5221S-TH8C (EQUALIZER)	
C1534	1-164-159-11	CERAMIC	0.1uF 50V	D1565	8-719-046-46	DIODE SEL5221S-TH8C (MEMORY)	
C1535	1-162-306-11	CERAMIC	0.01uF 20% 16V	D1566	8-719-046-46	DIODE SEL5221S-TH8C (VOLUME)	
C1536	1-164-159-11	CERAMIC	0.1uF 50V	D1567	8-719-046-46	DIODE SEL5221S-TH8C (P. FILE)	
C1537	1-162-306-11	CERAMIC	0.01uF 20% 16V	D1581	8-719-987-63	DIODE 1N4148M	
C1538	1-104-905-11	CAP, DOUBLE LAYERS	0.22F 5.5V	D1582	8-719-987-63	DIODE 1N4148M	
C1541	1-126-177-11	ELECT	100uF 20% 10V	D1583	8-719-987-63	DIODE 1N4148M	
C1551	1-126-301-11	ELECT	1uF 20% 50V	D1584	8-719-987-63	DIODE 1N4148M	
C1552	1-126-157-11	ELECT	10uF 20% 16V	D1585	8-719-987-63	DIODE 1N4148M	
C1553	1-126-157-11	ELECT	10uF 20% 16V	D1586	8-719-987-63	DIODE 1N4148M	
				D1587	8-719-987-63	DIODE 1N4148M	
< CONNECTOR >				D1589	8-719-987-63	DIODE 1N4148M	
CN601	1-750-420-11	CONNECTOR, FFC/FPC 15P		< FLUORESCENT INDICATOR >			
CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P		FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT	
				FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT	
< COMPOSITION CIRCUIT BLOCK >				< IC >			
CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	IC601	8-759-519-16	IC uPD78043GF-079-3B9	
CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	IC602	8-749-920-83	IC GP1U52XB	
CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	IC1101	8-759-634-51	IC M5218AP	
CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK	100K	IC1501	8-759-253-53	IC uPD78042GF056-3B9	
				IC1502	8-759-991-11	IC XR1091DCP	
< DIODE >				IC1503	8-759-635-63	IC M51943BSL	
D601	8-719-200-82	DIODE 11ES2		IC1505	8-759-917-18	IC SN74HC004AN	
D602	8-719-987-63	DIODE 1N4148M		IC1506	8-759-916-46	IC SN74HC139AN	
D603	8-719-987-63	DIODE 1N4148M		IC1507	8-759-917-18	IC SN74HC004AN	
D604	8-719-987-63	DIODE 1N4148M		< COIL >			
D1511	8-719-987-63	DIODE 1N4148M		L601	1-410-521-11	INDUCTOR 100uH	
D1512	8-719-987-63	DIODE 1N4148M		L1511	1-410-513-11	INDUCTOR 22uH	
D1513	8-719-987-63	DIODE 1N4148M		L1512	1-410-513-11	INDUCTOR 22uH	
D1514	8-719-987-63	DIODE 1N4148M		L1531	1-410-521-11	INDUCTOR 100uH	
D1522	8-719-987-63	DIODE 1N4148M		< TRANSISTOR >			
D1523	8-719-987-63	DIODE 1N4148M		Q601	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1531	8-719-200-82	DIODE 11ES2		Q602	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1532	8-719-200-82	DIODE 11ES2		Q1102	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1533	8-719-987-63	DIODE 1N4148M		Q1103	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D1534	8-719-987-63	DIODE 1N4148M		Q1152	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1535	8-719-987-63	DIODE 1N4148M		Q1153	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D1541	8-719-987-63	DIODE 1N4148M		Q1521	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1551	8-719-200-82	DIODE 11ES2		Q1531	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1552	8-719-200-82	DIODE 11ES2		Q1545	8-729-900-36	TRANSISTOR DTC124ES	
D1553	8-719-987-63	DIODE 1N4148M		Q1546	8-729-900-63	TRANSISTOR DTA124ES	
D1554	8-719-046-46	DIODE SEL5221S-TH8C (VIDEO)		Q1551	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1555	8-719-046-46	DIODE SEL5221S-TH8C (TAPE)					
D1556	8-719-046-46	DIODE SEL5221S-TH8C (CD)					
D1557	8-719-046-46	DIODE SEL5221S-TH8C (TUNER)					
D1558	8-719-046-46	DIODE SEL5221S-TH8C (PHONO)					
D1559	8-719-046-46	DIODE SEL5221S-TH8C (HALL 1)					

PANEL

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
< RESISTOR >							R656	1-249-410-11	CARBON	270	5%	1/4W	F
R602	1-249-417-11	CARBON	1K	5%	1/4W	F	R657	1-249-411-11	CARBON	330	5%	1/4W	
R603	1-249-417-11	CARBON	1K	5%	1/4W	F	R658	1-249-413-11	CARBON	470	5%	1/4W	F
R604	1-249-417-11	CARBON	1K	5%	1/4W	F	R659	1-249-414-11	CARBON	560	5%	1/4W	F
R605	1-249-417-11	CARBON	1K	5%	1/4W	F	R660	1-249-416-11	CARBON	820	5%	1/4W	F
R606	1-249-429-11	CARBON	10K	5%	1/4W		R661	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R607	1-249-423-11	CARBON	3.3K	5%	1/4W	F	R662	1-247-807-31	CARBON	100	5%	1/4W	
R608	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R663	1-249-406-11	CARBON	120	5%	1/4W	F
R609	1-249-429-11	CARBON	10K	5%	1/4W		R664	1-249-406-11	CARBON	120	5%	1/4W	F
R610	1-249-417-11	CARBON	1K	5%	1/4W	F	R665	1-247-811-31	CARBON	150	5%	1/4W	
R611	1-249-417-11	CARBON	1K	5%	1/4W	F	R666	1-249-408-11	CARBON	180	5%	1/4W	F
R612	1-249-417-11	CARBON	1K	5%	1/4W	F	R667	1-249-409-11	CARBON	220	5%	1/4W	F
R613	1-249-417-11	CARBON	1K	5%	1/4W	F	R668	1-249-410-11	CARBON	270	5%	1/4W	F
R614	1-249-417-11	CARBON	1K	5%	1/4W	F	R669	1-249-411-11	CARBON	330	5%	1/4W	
R615	1-249-413-11	CARBON	470	5%	1/4W	F	R670	1-249-413-11	CARBON	470	5%	1/4W	F
R619	1-249-437-11	CARBON	47K	5%	1/4W		R671	1-249-414-11	CARBON	560	5%	1/4W	F
R620	1-249-433-11	CARBON	22K	5%	1/4W		R672	1-249-416-11	CARBON	820	5%	1/4W	F
R621	1-249-433-11	CARBON	22K	5%	1/4W		R673	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R622	1-249-417-11	CARBON	1K	5%	1/4W	F	R674	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R623	1-249-409-11	CARBON	220	5%	1/4W	F	R675	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R624	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R676	1-249-441-11	CARBON	100K	5%	1/4W	(IT)
R625	1-249-441-11	CARBON	100K	5%	1/4W	(AEP, G)	R677	1-249-441-11	CARBON	100K	5%	1/4W	(AEP)
R626	1-249-441-11	CARBON	100K	5%	1/4W	(IT, G)	R678	1-249-417-11	CARBON	1K	5%	1/4W	F
R627	1-249-441-11	CARBON	100K	5%	1/4W		R679	1-249-417-11	CARBON	1K	5%	1/4W	F
R628	1-249-441-11	CARBON	100K	5%	1/4W		R680	1-249-417-11	CARBON	1K	5%	1/4W	F
R629	1-249-441-11	CARBON	100K	5%	1/4W	(G)	R681	1-249-417-11	CARBON	1K	5%	1/4W	F
R630	1-249-441-11	CARBON	100K	5%	1/4W	(IT, G)	R682	1-249-429-11	CARBON	10K	5%	1/4W	
R631	1-249-441-11	CARBON	100K	5%	1/4W		R683	1-249-417-11	CARBON	1K	5%	1/4W	F
R632	1-249-441-11	CARBON	100K	5%	1/4W		R1101	1-249-417-11	CARBON	1K	5%	1/4W	F
R633	1-249-441-11	CARBON	100K	5%	1/4W		R1102	1-247-903-00	CARBON	1M	5%	1/4W	
R634	1-249-441-11	CARBON	100K	5%	1/4W		R1103	1-249-429-11	CARBON	10K	5%	1/4W	
R635	1-249-441-11	CARBON	100K	5%	1/4W		R1104	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R636	1-249-441-11	CARBON	100K	5%	1/4W		R1106	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R637	1-249-441-11	CARBON	100K	5%	1/4W		R1107	1-249-434-11	CARBON	27K	5%	1/4W	
R638	1-249-441-11	CARBON	100K	5%	1/4W		R1108	1-247-881-00	CARBON	120K	5%	1/4W	
R640	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R1109	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R641	1-247-807-31	CARBON	100	5%	1/4W		R1110	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R642	1-249-406-11	CARBON	120	5%	1/4W	F	R1111	1-249-435-11	CARBON	33K	5%	1/4W	
R643	1-249-406-11	CARBON	120	5%	1/4W	F	R1112	1-249-426-11	CARBON	5.6K	5%	1/4W	
R644	1-247-811-31	CARBON	150	5%	1/4W		R1113	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R645	1-249-408-11	CARBON	180	5%	1/4W	F	R1114	1-249-412-11	CARBON	390	5%	1/4W	F
R646	1-249-409-11	CARBON	220	5%	1/4W	F	R1151	1-249-417-11	CARBON	1K	5%	1/4W	F
R647	1-249-410-11	CARBON	270	5%	1/4W	F	R1152	1-247-903-00	CARBON	1M	5%	1/4W	
R649	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R1153	1-249-429-11	CARBON	10K	5%	1/4W	
R650	1-247-807-31	CARBON	100	5%	1/4W		R1154	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R651	1-249-406-11	CARBON	120	5%	1/4W	F	R1156	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R652	1-249-406-11	CARBON	120	5%	1/4W	F	R1157	1-249-434-11	CARBON	27K	5%	1/4W	
R653	1-247-811-31	CARBON	150	5%	1/4W		R1158	1-247-881-00	CARBON	120K	5%	1/4W	
R654	1-249-408-11	CARBON	180	5%	1/4W	F	R1159	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R655	1-249-409-11	CARBON	220	5%	1/4W	F	R1160	1-249-425-11	CARBON	4.7K	5%	1/4W	F

PANEL

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1161	1-249-435-11	CARBON	33K 5% 1/4W			< SWITCH >	
R1162	1-249-426-11	CARBON	5.6K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (POWER)	
R1163	1-249-421-11	CARBON	2.2K 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1164	1-249-412-11	CARBON	390 5% 1/4W F	S603	1-554-303-21	SWITCH, TACTILE (1)	
R1181	1-249-431-11	CARBON	15K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (2)	
R1501	1-249-384-11	CARBON	1.8 5% 1/6W F	S605	1-554-303-21	SWITCH, TACTILE (3)	
R1502	1-249-384-11	CARBON	1.8 5% 1/6W F	S606	1-554-303-21	SWITCH, TACTILE (4)	
R1511	1-249-419-11	CARBON	1.5K 5% 1/4W F	S607	1-554-303-21	SWITCH, TACTILE (5)	
R1512	1-249-393-11	CARBON	10 5% 1/4W F	S608	1-554-303-21	SWITCH, TACTILE (6)	
R1521	1-249-429-11	CARBON	10K 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (7)	
R1522	1-249-429-11	CARBON	10K 5% 1/4W	S611	1-554-303-21	SWITCH, TACTILE (8)	
R1523	1-249-425-11	CARBON	4.7K 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (BAND)	
R1531	1-249-417-11	CARBON	1K 5% 1/4W F	S617	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1532	1-249-423-11	CARBON	3.3K 5% 1/4W F	S618	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1533	1-249-429-11	CARBON	10K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1545	1-249-433-11	CARBON	22K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1546	1-249-433-11	CARBON	22K 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (-)	
R1551	1-249-429-11	CARBON	10K 5% 1/4W	S622	1-554-303-21	SWITCH, TACTILE (9)	
R1552	1-249-425-11	CARBON	4.7K 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (0)	
R1554	1-249-415-11	CARBON	680 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (NEXT)	
R1555	1-249-414-11	CARBON	560 5% 1/4W F	S627	1-554-303-21	SWITCH, TACTILE (PTY)	
R1556	1-249-415-11	CARBON	680 5% 1/4W F	S628	1-554-303-21	SWITCH, TACTILE (EON)	
R1557	1-249-415-11	CARBON	680 5% 1/4W F	S629	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1558	1-249-415-11	CARBON	680 5% 1/4W F	S630	1-554-303-21	SWITCH, TACTILE (REC)	
R1559	1-249-415-11	CARBON	680 5% 1/4W F	S631	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1563	1-249-429-11	CARBON	10K 5% 1/4W	S632	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1564	1-249-429-11	CARBON	10K 5% 1/4W	S633	1-554-303-21	SWITCH, TACTILE (TIMER)	
R1565	1-249-429-11	CARBON	10K 5% 1/4W	S634	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1571	1-249-429-11	CARBON	10K 5% 1/4W	S636	1-554-303-21	SWITCH, TACTILE (+)	
R1572	1-249-429-11	CARBON	10K 5% 1/4W	S1551	1-554-303-21	SWITCH, TACTILE (PHONO)	
R1573	1-249-429-11	CARBON	10K 5% 1/4W	S1552	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, DOWN)	
R1581	1-247-883-00	CARBON	150K 5% 1/4W	S1553	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1582	1-249-429-11	CARBON	10K 5% 1/4W	S1554	1-554-303-21	SWITCH, TACTILE (CD)	
R1583	1-247-895-00	CARBON	470K 5% 1/4W	S1555	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1591	1-247-807-31	CARBON	100 5% 1/4W	S1556	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1592	1-247-807-31	CARBON	100 5% 1/4W	S1557	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, RIGHT)	
R1593	1-247-807-31	CARBON	100 5% 1/4W	S1558	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, LEFT)	
R1594	1-247-807-31	CARBON	100 5% 1/4W	S1559	1-554-303-21	SWITCH, TACTILE (P. FILE)	
R1595	1-249-413-11	CARBON	470 5% 1/4W F	S1560	1-554-303-21	SWITCH, TACTILE (HALL 1)	
R1596	1-249-413-11	CARBON	470 5% 1/4W F	S1561	1-554-303-21	SWITCH, TACTILE (DANCE 2)	
R1597	1-249-413-11	CARBON	470 5% 1/4W F	S1562	1-554-303-21	SWITCH, TACTILE (EQ FLAT)	
R1598	1-249-393-11	CARBON	10 5% 1/4W F	S1563	1-554-303-21	SWITCH, TACTILE (EQUALIZER)	
< VARIABLE RESISTOR >				S1565	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
RV1181	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)		S1566	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, UP)	
RV1182	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS LEVEL)		S1567	1-554-303-21	SWITCH, TACTILE (MEMORY)	
RV1183	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS FREQUENCY (Hz))		S1568	1-554-303-21	SWITCH, TACTILE (VOCAL 3)	
RV1184	1-223-569-11	RES, VAR, CARBON 100K (BALANCE)		S1569	1-554-303-21	SWITCH, TACTILE (POPS 4)	
				S1570	1-554-303-21	SWITCH, TACTILE (BGM 5)	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< VIBRATOR >				C1511	1-164-159-11	CERAMIC 0.1uF	50V
X601	1-760-096-21	VIBRATOR, CRYSTAL (4.19MHz)		C1512	1-164-159-11	CERAMIC 0.1uF	50V
X1501	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)		C1513	1-126-157-11	ELECT 10uF	20% 16V
*****				C1514	1-126-177-11	ELECT 100uF	20% 10V
*	A-4369-156-A	PANEL BOARD, COMPLETE (UK)	*****	C1515	1-164-159-11	CERAMIC 0.1uF	50V
*	A-4369-309-A	PANEL BOARD, COMPLETE (EE)	*****	C1516	1-164-159-11	CERAMIC 0.1uF	50V
*	A-4369-903-A	PANEL BOARD, COMPLETE (CIS)	*****	C1517	1-162-294-31	CERAMIC 0.001uF	10% 50V
	4-942-301-01	HOLDER, FL TUBE		C1531	1-126-157-11	ELECT 10uF	20% 16V
*	4-949-935-21	CUSHION (FL)		C1532	1-164-159-11	CERAMIC 0.1uF	50V
< CAPACITOR >				C1534	1-164-159-11	CERAMIC 0.1uF	50V
C601	1-124-442-00	ELECT 330uF	20% 6.3V	C1536	1-164-159-11	CERAMIC 0.1uF	50V
C602	1-161-379-00	CERAMIC 0.01uF	20% 25V	C1538	1-104-905-11	CAP, DOUBLE LAYERS 0.22F	5.5V
C603	1-124-442-00	ELECT 330uF	20% 6.3V	C1541	1-126-177-11	ELECT 100uF	20% 10V
C605	1-124-916-11	ELECT 22uF	20% 63V	C1551	1-126-301-11	ELECT 1uF	20% 50V
C606	1-162-202-31	CERAMIC 13PF	5% 50V	C1552	1-126-157-11	ELECT 10uF	20% 16V
C607	1-162-202-31	CERAMIC 13PF	5% 50V	C1553	1-126-157-11	ELECT 10uF	20% 16V
C608	1-126-163-11	ELECT 4.7uF	20% 50V	C1533	1-161-379-00	CERAMIC 0.01uF	20% 25V (UK)
C609	1-161-379-00	CERAMIC 0.01uF	20% 25V	C1535	1-161-379-00	CERAMIC 0.01uF	20% 25V (UK)
C610	1-161-379-00	CERAMIC 0.01uF	20% 25V	C1535	1-162-306-11	CERAMIC 0.01uF	20% 16V
C613	1-124-903-11	ELECT 1uF	20% 50V	C1537	1-161-379-00	CERAMIC 0.01uF	20% 25V (UK)
C614	1-124-903-11	ELECT 1uF	20% 50V	C1537	1-162-306-11	CERAMIC 0.01uF	20% 16V
C615	1-124-442-00	ELECT 330uF	20% 6.3V	< CONNECTOR >			
C1101	1-124-589-11	ELECT 47uF	20% 16V	* CN601	1-750-416-11	CONNECTOR, FFC/FPC 11P	
C1102	1-162-219-31	CERAMIC 68PF	5% 50V	CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P	
C1103	1-162-282-31	CERAMIC 100PF	10% 50V	< COMPOSITION CIRCUIT BLOCK >			
C1104	1-126-157-11	ELECT 10uF	20% 16V	* CP601	1-233-216-11	COMPOSITION CIRCUIT BLOCK 220PF	
C1106	1-124-252-00	ELECT 0.33uF	20% 50V	CP602	1-239-584-11	COMPOSITION CIRCUIT BLOCK 220PF	
C1107	1-124-463-00	ELECT 0.1uF	20% 50V	CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1108	1-126-301-11	ELECT 1uF	20% 50V	CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1109	1-126-301-11	ELECT 1uF	20% 50V	CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1151	1-124-589-11	ELECT 47uF	20% 16V	CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1152	1-162-219-31	CERAMIC 68PF	5% 50V	< DIODE >			
C1153	1-162-282-31	CERAMIC 100PF	10% 50V	D600	8-719-987-63	DIODE 1N4148M	
C1154	1-126-157-11	ELECT 10uF	20% 16V	D601	8-719-987-63	DIODE 1N4148M	
C1156	1-124-252-00	ELECT 0.33uF	20% 50V	D602	8-719-200-82	DIODE 11ES2	
C1157	1-124-463-00	ELECT 0.1uF	20% 50V	D604	8-719-987-63	DIODE 1N4148M	
C1158	1-126-301-11	ELECT 1uF	20% 50V	D607	8-719-987-63	DIODE 1N4148M (EE, CIS)	
C1159	1-126-301-11	ELECT 1uF	20% 50V	D608	8-719-987-63	DIODE 1N4148M (EE, CIS)	
C1501	1-164-159-11	CERAMIC 0.1uF	50V	D614	8-719-987-63	DIODE 1N4148M	
C1502	1-164-159-11	CERAMIC 0.1uF	50V	D615	8-719-987-63	DIODE 1N4148M	
C1503	1-164-159-11	CERAMIC 0.1uF	50V	D616	8-719-987-63	DIODE 1N4148M	
C1504	1-126-301-11	ELECT 1uF	20% 50V	D617	8-719-987-63	DIODE 1N4148M	
C1505	1-126-301-11	ELECT 1uF	20% 50V	D618	8-719-987-63	DIODE 1N4148M	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D619	8-719-987-63	DIODE 1N4148M		IC1503	8-759-635-63	IC M51943BSL	
D620	8-719-987-63	DIODE 1N4148M		IC1505	8-759-917-18	IC SN74HCU04AN	
D1511	8-719-987-63	DIODE 1N4148M		IC1506	8-759-916-46	IC SN74HC139AN	
D1512	8-719-987-63	DIODE 1N4148M		IC1507	8-759-917-18	IC SN74HCU04AN	
D1513	8-719-987-63	DIODE 1N4148M		< COIL >			
D1514	8-719-987-63	DIODE 1N4148M		L601	1-410-521-11	INDUCTOR 100uH	
D1522	8-719-987-63	DIODE 1N4148M		L1511	1-410-513-11	INDUCTOR 22uH	
D1523	8-719-987-63	DIODE 1N4148M		L1512	1-410-513-11	INDUCTOR 22uH	
D1531	8-719-200-82	DIODE 11ES2		L1531	1-410-521-11	INDUCTOR 100uH	
D1532	8-719-200-82	DIODE 11ES2		< TRANSISTOR >			
D1533	8-719-987-63	DIODE 1N4148M		Q602	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1534	8-719-987-63	DIODE 1N4148M		Q1102	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1535	8-719-987-63	DIODE 1N4148M		Q1103	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D1541	8-719-987-63	DIODE 1N4148M		Q1152	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1551	8-719-200-82	DIODE 11ES2		Q1153	8-729-141-26	TRANSISTOR 2SC3622A-LK	
D1552	8-719-200-82	DIODE 11ES2		Q1521	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1553	8-719-987-63	DIODE 1N4148M		Q1531	8-729-119-78	TRANSISTOR 2SC403SP-51	
D1554	8-719-046-46	DIODE SEL5221S-TH8C (VIDEO)		Q1545	8-729-900-36	TRANSISTOR DTC124ES	
D1555	8-719-046-46	DIODE SEL5221S-TH8C (TAPE)		Q1546	8-729-900-63	TRANSISTOR DTA124ES	
D1556	8-719-046-46	DIODE SEL5221S-TH8C (CD)		Q1551	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D1557	8-719-046-46	DIODE SEL5221S-TH8C (TUNER)		< RESISTOR >			
D1558	8-719-046-46	DIODE SEL5221S-TH8C (PHONO)		R603	1-249-429-11	CARBON 10K 5% 1/4W	
D1559	8-719-046-46	DIODE SEL5221S-TH8C (HALL 1)		R604	1-249-425-11	CARBON 4.7K 5% 1/4W F	
D1560	8-719-046-46	DIODE SEL5221S-TH8C (DANCE 2)		R605	1-249-441-11	CARBON 100K 5% 1/4W	
D1561	8-719-046-46	DIODE SEL5221S-TH8C (VOCAL 3)		R606	1-249-417-11	CARBON 1K 5% 1/4W F	
D1562	8-719-046-46	DIODE SEL5221S-TH8C (POPS 4)		R607	1-249-409-11	CARBON 220 5% 1/4W F	
D1563	8-719-046-46	DIODE SEL5221S-TH8C (BGM 5)		R608	1-249-409-11	CARBON 220 5% 1/4W F	
D1564	8-719-046-46	DIODE SEL5221S-TH8C (EQUALIZER)		R609	1-249-409-11	CARBON 220 5% 1/4W F	
D1565	8-719-046-46	DIODE SEL5221S-TH8C (MEMORY)		R611	1-249-421-11	CARBON 2.2K 5% 1/4W F	
D1566	8-719-046-46	DIODE SEL5221S-TH8C (VOLUME)		R612	1-249-423-11	CARBON 3.3K 5% 1/4W F	
D1567	8-719-046-46	DIODE SEL5221S-TH8C (P. FILE)		R613	1-249-441-11	CARBON 100K 5% 1/4W	
D1581	8-719-987-63	DIODE 1N4148M		R614	1-249-441-11	CARBON 100K 5% 1/4W	
D1582	8-719-987-63	DIODE 1N4148M		R615	1-249-441-11	CARBON 100K 5% 1/4W	
D1583	8-719-987-63	DIODE 1N4148M		R619	1-249-429-11	CARBON 10K 5% 1/4W	
D1584	8-719-987-63	DIODE 1N4148M		R620	1-249-429-11	CARBON 10K 5% 1/4W	
D1585	8-719-987-63	DIODE 1N4148M		R621	1-249-429-11	CARBON 10K 5% 1/4W	
D1586	8-719-987-63	DIODE 1N4148M		R622	1-249-429-11	CARBON 10K 5% 1/4W	
D1587	8-719-987-63	DIODE 1N4148M		R623	1-249-429-11	CARBON 10K 5% 1/4W	
D1589	8-719-987-63	DIODE 1N4148M		R624	1-249-429-11	CARBON 10K 5% 1/4W	
< FLUORESCENT INDICATOR >				R625	1-249-429-11	CARBON 10K 5% 1/4W	
FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT		R626	1-249-429-11	CARBON 10K 5% 1/4W	
FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT		R627	1-249-425-11	CARBON 4.7K 5% 1/4W F	
< IC >				R628	1-249-425-11	CARBON 4.7K 5% 1/4W F	
IC601	8-759-248-05	IC TMP47C1270AN-H227		R629	1-249-425-11	CARBON 4.7K 5% 1/4W F	
IC602	8-749-920-83	IC GP1U52XB		R630	1-249-425-11	CARBON 4.7K 5% 1/4W F	
IC1101	8-759-634-51	IC M5218AP		R631	1-249-425-11	CARBON 4.7K 5% 1/4W F	
IC1501	8-759-253-53	IC uPD78042GF056-3B9		R632	1-249-425-11	CARBON 4.7K 5% 1/4W F	
IC1502	8-759-991-11	IC XR1091DCP		R633	1-249-425-11	CARBON 4.7K 5% 1/4W F	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R634	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1564	1-249-429-11	CARBON	10K 5% 1/4W
R635	1-249-429-11	CARBON	10K 5% 1/4W	R1565	1-249-429-11	CARBON	10K 5% 1/4W
R1101	1-249-417-11	CARBON	1K 5% 1/4W F	R1571	1-249-429-11	CARBON	10K 5% 1/4W
R1102	1-247-903-00	CARBON	1M 5% 1/4W	R1572	1-249-429-11	CARBON	10K 5% 1/4W
R1103	1-249-429-11	CARBON	10K 5% 1/4W	R1573	1-249-429-11	CARBON	10K 5% 1/4W
R1104	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1581	1-247-883-00	CARBON	150K 5% 1/4W
R1106	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1582	1-249-429-11	CARBON	10K 5% 1/4W
R1107	1-249-434-11	CARBON	27K 5% 1/4W	R1583	1-247-895-00	CARBON	470K 5% 1/4W
R1108	1-247-881-00	CARBON	120K 5% 1/4W	R1591	1-247-807-31	CARBON	100 5% 1/4W
R1109	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1592	1-247-807-31	CARBON	100 5% 1/4W
R1110	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1593	1-247-807-31	CARBON	100 5% 1/4W
R1111	1-249-435-11	CARBON	33K 5% 1/4W	R1594	1-247-807-31	CARBON	100 5% 1/4W
R1112	1-249-426-11	CARBON	5.6K 5% 1/4W	R1595	1-249-413-11	CARBON	470 5% 1/4W F
R1113	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1596	1-249-413-11	CARBON	470 5% 1/4W F
R1114	1-249-412-11	CARBON	390 5% 1/4W F	R1597	1-249-413-11	CARBON	470 5% 1/4W F
R1151	1-249-417-11	CARBON	1K 5% 1/4W F	R1598	1-249-393-11	CARBON	10 5% 1/4W F
R1152	1-247-903-00	CARBON	1M 5% 1/4W	< VARIABLE RESISTOR >			
R1153	1-249-429-11	CARBON	10K 5% 1/4W	RV1181	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
R1154	1-249-421-11	CARBON	2.2K 5% 1/4W F	RV1182	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS LEVEL)	
R1156	1-249-421-11	CARBON	2.2K 5% 1/4W F	RV1183	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS FREQUENCY (Hz))	
R1157	1-249-434-11	CARBON	27K 5% 1/4W	RV1184	1-223-569-11	RES, VAR, CARBON 100K (BALANCE)	
R1158	1-247-881-00	CARBON	120K 5% 1/4W	< SWITCH >			
R1159	1-249-427-11	CARBON	6.8K 5% 1/4W F	S601	1-554-303-21	SWITCH, TACTILE (1)	
R1160	1-249-425-11	CARBON	4.7K 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (2)	
R1161	1-249-435-11	CARBON	33K 5% 1/4W	S603	1-554-303-21	SWITCH, TACTILE (3)	
R1162	1-249-426-11	CARBON	5.6K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (4)	
R1163	1-249-421-11	CARBON	2.2K 5% 1/4W F	S605	1-554-303-21	SWITCH, TACTILE (5)	
R1164	1-249-412-11	CARBON	390 5% 1/4W F	S606	1-554-303-21	SWITCH, TACTILE (6)	
R1181	1-249-431-11	CARBON	15K 5% 1/4W	S607	1-554-303-21	SWITCH, TACTILE (7)	
R1501	1-249-384-11	CARBON	1.8 5% 1/6W F	S608	1-554-303-21	SWITCH, TACTILE (8)	
R1502	1-249-384-11	CARBON	1.8 5% 1/6W F	S609	1-554-303-21	SWITCH, TACTILE (9)	
R1511	1-249-419-11	CARBON	1.5K 5% 1/4W F	S610	1-554-303-21	SWITCH, TACTILE (0)	
R1512	1-249-393-11	CARBON	10 5% 1/4W F	S611	1-554-303-21	SWITCH, TACTILE (+)	
R1521	1-249-429-11	CARBON	10K 5% 1/4W	S612	1-554-303-21	SWITCH, TACTILE (-)	
R1522	1-249-429-11	CARBON	10K 5% 1/4W	S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1523	1-249-425-11	CARBON	4.7K 5% 1/4W F	S614	1-554-303-21	SWITCH, TACTILE (BAND)	
R1531	1-249-417-11	CARBON	1K 5% 1/4W F	S615	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1532	1-249-423-11	CARBON	3.3K 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1533	1-249-429-11	CARBON	10K 5% 1/4W	S617	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1545	1-249-433-11	CARBON	22K 5% 1/4W	S618	1-554-303-21	SWITCH, TACTILE (REC)	
R1546	1-249-433-11	CARBON	22K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1551	1-249-429-11	CARBON	10K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1552	1-249-425-11	CARBON	4.7K 5% 1/4W F	S621	1-554-303-21	SWITCH, TACTILE (TIMER)	
R1554	1-249-415-11	CARBON	680 5% 1/4W F	S622	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1555	1-249-414-11	CARBON	560 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1556	1-249-415-11	CARBON	680 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (POWER)	
R1557	1-249-415-11	CARBON	680 5% 1/4W F	S625	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1558	1-249-415-11	CARBON	680 5% 1/4W F				
R1559	1-249-415-11	CARBON	680 5% 1/4W F				
R1563	1-249-429-11	CARBON	10K 5% 1/4W				

PANEL

PANEL (A)

PANEL (B)

Ref.No.	Part No.	Description	Remark
S626	1-554-303-21	SWITCH, TACTILE (NEXT)	
S1551	1-554-303-21	SWITCH, TACTILE (PHONO)	
S1552	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, DOWN)	
S1553	1-554-303-21	SWITCH, TACTILE (TUNER)	
S1554	1-554-303-21	SWITCH, TACTILE (CD)	
S1555	1-554-303-21	SWITCH, TACTILE (TAPE)	
S1556	1-554-303-21	SWITCH, TACTILE (VIDEO)	
S1557	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, RIGHT)	
S1558	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, LEFT)	
S1559	1-554-303-21	SWITCH, TACTILE (P. FILE)	
S1560	1-554-303-21	SWITCH, TACTILE (HALL 1)	
S1561	1-554-303-21	SWITCH, TACTILE (DANCE 2)	
S1562	1-554-303-21	SWITCH, TACTILE (EQ FLAT)	
S1563	1-554-303-21	SWITCH, TACTILE (EQUALIZER)	
S1565	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S1566	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, UP)	
S1567	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S1568	1-554-303-21	SWITCH, TACTILE (VOCAL 3)	
S1569	1-554-303-21	SWITCH, TACTILE (POPS 4)	
S1570	1-554-303-21	SWITCH, TACTILE (BGM 5)	

< VIBRATOR >

X601	1-579-564-11	VIBRATOR, CRYSTAL (8.38MHz)	
X1501	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	

* 1-650-780-11 PANEL (A) BOARD

< CONNECTOR >

* CN951 1-568-828-11 SOCKET, CONNECTOR 9P

< DIODE >

D982	8-719-046-42	DIODE SEL5421E-TH8C (▷)	
D983	8-719-046-42	DIODE SEL5421E-TH8C (◁)	

< RESISTOR >

R981	1-247-811-31	CARBON	150	5%	1/4W
R982	1-249-409-11	CARBON	220	5%	1/4W F
R983	1-249-415-11	CARBON	680	5%	1/4W F
R984	1-249-417-11	CARBON	1K	5%	1/4W F
R985	1-249-426-11	CARBON	5.6K	5%	1/4W
R986	1-249-430-11	CARBON	12K	5%	1/4W

< SWITCH >

S901	1-554-303-21	SWITCH, TACTILE (■)	
S902	1-554-303-21	SWITCH, TACTILE (▷)	
S903	1-554-303-21	SWITCH, TACTILE (◁)	
S904	1-554-303-21	SWITCH, TACTILE (AMS ◀◀)	
S905	1-554-303-21	SWITCH, TACTILE (AMS ▶▶)	

Ref.No.	Part No.	Description	Remark
S906	1-572-269-11	SWITCH, SLIDE (DOLBY NR)	
S907	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)	

* 1-650-781-11 PANEL (B) BOARD

< CONNECTOR >

* CN952 1-568-856-11 SOCKET, CONNECTOR 13P

< DIODE >

D991	8-719-046-46	DIODE SEL5221S-TH8C (REC ●)	
D992	8-719-046-38	DIODE SEL5821A-TH8C (PAUSE ■)	
D994	8-719-046-42	DIODE SEL5421E-TH8C (▷)	
D995	8-719-046-42	DIODE SEL5421E-TH8C (◁)	
D996	8-719-046-46	DIODE SEL5221S-TH8C (CD SYNCHRO)	

D997	8-719-046-46	DIODE SEL5221S-TH8C (NORMAL)	
D998	8-719-046-46	DIODE SEL5221S-TH8C (HIGH)	

< RESISTOR >

R990	1-247-811-31	CARBON	150	5%	1/4W
R991	1-249-409-11	CARBON	220	5%	1/4W F
R992	1-249-411-11	CARBON	330	5%	1/4W
R993	1-249-413-11	CARBON	470	5%	1/4W F
R994	1-249-411-11	CARBON	330	5%	1/4W
R995	1-249-413-11	CARBON	470	5%	1/4W F
R996	1-249-415-11	CARBON	680	5%	1/4W F
R997	1-249-417-11	CARBON	1K	5%	1/4W F
R998	1-249-420-11	CARBON	1.8K	5%	1/4W F
R999	1-249-424-11	CARBON	3.9K	5%	1/4W F

< SWITCH >

S951	1-554-303-21	SWITCH, TACTILE (■)	
S952	1-554-303-21	SWITCH, TACTILE (PAUSE ■)	
S953	1-554-303-21	SWITCH, TACTILE (▷)	
S954	1-554-303-21	SWITCH, TACTILE (◁)	
S955	1-554-303-21	SWITCH, TACTILE (REC MUTE ●)	
S956	1-554-303-21	SWITCH, TACTILE (AMS ◀◀)	
S957	1-554-303-21	SWITCH, TACTILE (AMS ▶▶)	
S958	1-554-303-21	SWITCH, TACTILE (REC ●)	
S959	1-554-303-21	SWITCH, TACTILE (HIGH)	
S960	1-554-303-21	SWITCH, TACTILE (NORMAL)	
S961	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	

Ref. No.	Part No.	Description	Remark
*	A-4360-815-A	POLAR BOARD, COMPLETE (CIS)	

		< CAPACITOR >	
C1701	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C1702	1-104-294-11	POLYSTYRENE 470PF 5% 50V	
C1703	1-124-902-00	ELECT 0.47uF 20% 50V	
C1704	1-124-902-00	ELECT 0.47uF 20% 50V	
C1705	1-164-098-11	CERAMIC 0.047uF 12V	
C1706	1-124-903-11	ELECT 1uF 20% 50V	
C1707	1-162-288-31	CERAMIC 330PF 10% 50V	
C1708	1-124-903-11	ELECT 1uF 20% 50V	
C1709	1-124-903-11	ELECT 1uF 20% 50V	
C1710	1-130-471-00	MYLAR 0.001uF 5% 50V	
C1711	1-130-471-00	MYLAR 0.001uF 5% 50V	
C1712	1-130-736-11	FILM 0.01uF 5% 50V	
C1713	1-130-736-11	FILM 0.01uF 5% 50V	
C1714	1-124-903-11	ELECT 1uF 20% 50V	
C1715	1-124-903-11	ELECT 1uF 20% 50V	
C1716	1-124-903-11	ELECT 1uF 20% 50V	
C1717	1-162-291-31	CERAMIC 560PF 10% 50V	
C1718	1-162-291-31	CERAMIC 560PF 10% 50V	
C1719	1-124-477-11	ELECT 47uF 20% 25V	
C1720	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1721	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1722	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1723	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1724	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1725	1-124-477-11	ELECT 47uF 20% 25V	
C1726	1-124-903-11	ELECT 1uF 20% 50V	
C1727	1-124-903-11	ELECT 1uF 20% 50V	
C1728	1-124-034-51	ELECT 33uF 20% 16V	
C1729	1-124-907-11	ELECT 10uF 20% 50V	

< CONNECTOR >

* CN1701 1-568-832-11 SOCKET, CONNECTOR 13P

< DIODE >

D1701	8-719-987-63	DIODE 1N4148M
D1702	8-719-987-63	DIODE 1N4148M
D1703	8-719-987-63	DIODE 1N4148M
D1704	8-719-987-63	DIODE 1N4148M
D1705	8-719-987-63	DIODE 1N4148M

< IC >

IC1701	8-759-063-04	IC IR3R42
IC1702	8-759-634-51	IC M5218AP
IC1703	8-759-140-53	IC MC14053BCP

Ref. No.	Part No.	Description	Remark
		< COIL >	
L1701	1-409-497-11	COIL (FILTER)	
		< TRANSISTOR >	
Q1701	8-729-900-61	TRANSISTOR DTA114ES	
Q1702	8-729-900-80	TRANSISTOR DTC114ES	
Q1703	8-729-900-80	TRANSISTOR DTC114ES	
Q1704	8-729-900-80	TRANSISTOR DTC114ES	
Q1705	8-729-900-61	TRANSISTOR DTA114ES	
		< RESISTOR >	
R1701	1-249-432-11	CARBON 18K 5% 1/4W	
R1702	1-249-435-11	CARBON 33K 5% 1/4W	
R1703	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R1704	1-247-858-11	CARBON 13K 5% 1/4W	
R1705	1-249-417-11	CARBON 1K 5% 1/4W F	
R1706	1-249-417-11	CARBON 1K 5% 1/4W F	
R1707	1-249-441-11	CARBON 100K 5% 1/4W	
R1708	1-249-440-11	CARBON 82K 5% 1/4W	
R1709	1-249-439-11	CARBON 68K 5% 1/4W	
R1710	1-249-439-11	CARBON 68K 5% 1/4W	
R1711	1-249-439-11	CARBON 68K 5% 1/4W	
R1712	1-247-878-00	CARBON 91K 5% 1/4W	
R1713	1-247-878-00	CARBON 91K 5% 1/4W	
R1714	1-249-441-11	CARBON 100K 5% 1/4W	
R1715	1-249-441-11	CARBON 100K 5% 1/4W	
R1716	1-249-441-11	CARBON 100K 5% 1/4W	
R1717	1-249-441-11	CARBON 100K 5% 1/4W	
R1718	1-249-429-11	CARBON 10K 5% 1/4W	
R1719	1-249-429-11	CARBON 10K 5% 1/4W	
R1720	1-249-429-11	CARBON 10K 5% 1/4W	
R1721	1-249-434-11	CARBON 27K 5% 1/4W	
R1722	1-249-441-11	CARBON 100K 5% 1/4W	

< VARIABLE RESISTOR >

RV1701	1-238-601-11	RES, ADJ, CARBON 22K
RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K

< SWITCH >

S1701 1-571-303-11 SWITCH, SLIDE (POLAR-PILOT TONE)

< PIN CONNECTOR >

* TP1701 1-560-061-00 PIN, CONNECTOR 3P
* TP1702 1-560-061-00 PIN, CONNECTOR 3P

POWER

POWER AMP

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*	A-4369-159-A	POWER BOARD, COMPLETE (UK) *****				< RESISTOR >	
*	A-4369-172-A	POWER BOARD, COMPLETE (AEP, IT, G) *****		R1601	1-249-417-11	CARBON 1K 5% 1/4W F	
*	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS) *****		R1602	1-249-429-11	CARBON 10K 5% 1/4W	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		△R1603	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
		< CAPACITOR >		R1611	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△C1	1-161-744-51	CERAMIC 0.01uF 400V		R1612	1-249-421-11	CARBON 2.2K 5% 1/4W F	
C1601	1-124-907-11	ELECT 10uF 20% 50V		△R1613	1-212-934-00	FUSIBLE 1 5% 1/2W F	
C1602	1-161-379-00	CERAMIC 0.01uF 20% 25V (UK)		R1621	1-249-423-11	CARBON 3.3K 5% 1/4W F	
C1602	1-162-306-11	CERAMIC 0.01uF 20% 16V		R1622	1-249-433-11	CARBON 22K 5% 1/4W F	
		(AEP, IT, G, EE, CIS)		R1623	1-249-400-11	CARBON 39 5% 1/4W F	(AEP, IT, G)
C1603	1-124-907-11	ELECT 10uF 20% 50V		R1624	1-249-400-11	CARBON 39 5% 1/4W F	(AEP, IT, G)
C1604	1-161-379-00	CERAMIC 0.01uF 20% 25V (UK)				< RELAY >	
C1604	1-162-306-11	CERAMIC 0.01uF 20% 16V		RY1	1-515-738-11	RELAY, POWER	
		(AEP, IT, G, EE, CIS)				< TRANSFORMER >	
C1605	1-124-463-00	ELECT 0.1uF 20% 50V		△T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, IT, G)	
C1606	1-124-557-11	ELECT 1000uF 20% 25V		△T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)	
C1607	1-136-165-00	FILM 0.1uF 5% 50V (EE, CIS)				*****	
C1607	1-164-159-11	CERAMIC 0.1uF 50V		*	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK) *****	
		(AEP, UK, IT, G)		*	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS) *****	
C1611	1-124-910-11	ELECT 47uF 20% 50V		*	A-4369-305-A	POWER AMP BOARD, COMPLETE (IT, G) *****	
C1612	1-124-907-11	ELECT 10uF 20% 50V				< CAPACITOR >	
C1613	1-124-122-11	ELECT 100uF 20% 50V		C1201	1-126-163-11	ELECT 4.7uF 20% 50V	
		< CONNECTOR >		C1202	1-164-075-11	CERAMIC 150PF 10% 50V	
* CN1	1-564-321-00	PIN, CONNECTOR 2P		C1203	1-164-077-11	CERAMIC 220PF 10% 50V	
		< DIODE >		C1204	1-124-126-00	ELECT 47uF 20% 10V	
D1601	8-719-987-63	DIODE 1N4148M		C1205	1-124-910-11	ELECT 47uF 20% 50V	
D1602	8-719-200-82	DIODE 11ES2					
D1603	8-719-200-82	DIODE 11ES2		C1206	1-124-122-11	ELECT 100uF 20% 50V	
D1604	8-719-200-82	DIODE 11ES2		C1208	1-124-916-11	ELECT 22uF 20% 63V	
D1605	8-719-200-82	DIODE 11ES2		C1210	1-137-375-11	FILM 0.068uF 5% 50V	
D1606	8-719-987-63	DIODE 1N4148M		C1211	1-137-375-11	FILM 0.068uF 5% 50V	
D1611	8-719-014-66	DIODE UZP-5.6B		C1220	1-126-176-11	ELECT 220uF 20% 10V	
D1612	8-719-002-60	DIODE UZL-33L					
D1613	8-719-200-82	DIODE 11ES2		C1251	1-126-163-11	ELECT 4.7uF 20% 50V	
		< IC >		C1252	1-164-075-11	CERAMIC 150PF 10% 50V	
IC1601	8-759-820-13	IC L78MR06		C1253	1-164-077-11	CERAMIC 220PF 10% 50V	
		< TRANSISTOR >		C1254	1-124-126-00	ELECT 47uF 20% 10V	
Q1611	8-729-141-83	TRANSISTOR 2SB1094-LK		C1255	1-124-910-11	ELECT 47uF 20% 50V	
Q1621	8-729-119-78	TRANSISTOR 2SC403SP-51		C1256	1-124-122-11	ELECT 100uF 20% 50V	
				C1260	1-137-375-11	FILM 0.068uF 5% 50V	
				C1261	1-137-375-11	FILM 0.068uF 5% 50V	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

POWER AMP VR

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
* CN1203 1-564-518-11 PLUG, CONNECTOR 3P			
CN1204 1-764-331-11 PIN, CONNECTOR (PCB) (V TYPE) 8P			
< IC >			
IC1201	8-749-900-24	IC STK-4162MK2 (AEP, IT, G, EE, CIS)	
IC1201	8-749-920-09	IC STK-4152MK2K (UK)	
< DIODE >			
D1201	8-719-987-63	DIODE 1N4148M	
D1202	8-719-987-63	DIODE 1N4148M	
D1251	8-719-987-63	DIODE 1N4148M	
< TRANSISTOR >			
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
< RESISTOR >			
R1201	1-249-417-11	CARBON 1K 5% 1/4W F	
R1202	1-249-438-11	CARBON 56K 5% 1/4W	
R1203	1-249-414-11	CARBON 560 5% 1/4W F	
R1204	1-249-438-11	CARBON 56K 5% 1/4W	
R1205	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1206	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1207	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1208	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△R1209	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R1210	1-217-151-00	RES, METAL PLATE 0.22 2W	
R1211	1-249-417-11	CARBON 1K 5% 1/4W F	
R1212	1-249-431-11	CARBON 15K 5% 1/4W	
R1213	1-249-441-11	CARBON 100K 5% 1/4W	
R1214	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1215	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1216	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1217	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1218	1-249-397-11	CARBON 22 5% 1/4W F	
R1219	1-249-397-11	CARBON 22 5% 1/4W F	
R1227	1-249-429-11	CARBON 10K 5% 1/4W	
R1228	1-249-441-11	CARBON 100K 5% 1/4W	
R1230	1-249-429-11	CARBON 10K 5% 1/4W	
R1243	1-249-383-11	CARBON 1.5 5% 1/6W F	
R1251	1-249-417-11	CARBON 1K 5% 1/4W F	
R1252	1-249-438-11	CARBON 56K 5% 1/4W	
R1253	1-249-414-11	CARBON 560 5% 1/4W F	
R1254	1-249-438-11	CARBON 56K 5% 1/4W	
R1255	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1256	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1257	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1258	1-249-425-11	CARBON 4.7K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
△R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R1260	1-217-151-00	RES, METAL PLATE 0.22 2W	
R1261	1-249-417-11	CARBON 1K 5% 1/4W F	
R1262	1-249-431-11	CARBON 15K 5% 1/4W	
R1263	1-249-441-11	CARBON 100K 5% 1/4W	
R1268	1-249-397-11	CARBON 22 5% 1/4W F	
R1269	1-249-397-11	CARBON 22 5% 1/4W F	

*	1-651-167-11	VR BOARD	

< CAPACITOR >			
C1185	1-164-159-11	CERAMIC 0.1uF 50V	
C1507	1-161-494-00	CERAMIC 0.022uF 25V	
C1508	1-124-443-00	ELECT 100uF 20% 10V	
< CONNECTOR >			
* CN1502 1-568-934-11 PIN, CONNECTOR 7P			
< IC >			
IC1504	8-759-820-62	IC LB1639	
< VARIABLE RESISTOR >			
RV1185	1-241-350-11	RES, VAR, CARBON 100K/100K (VOLUME)	

MISCELLANEOUS			

6	1-765-176-11	WIRE (FLAT TYPE) (26 CORE)	
* 7	1-696-674-11	WIRE (FLAT TYPE) (23 CORE)	
8	1-690-824-11	WIRE (FLAT TYPE) (25 CORE)	
9	1-575-906-11	WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)	
9	1-590-459-11	WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)	
△16	1-575-651-11	CORD, POWER (AEP, G, IT, EE, CIS)	
△17	1-696-570-21	CORD, POWER (UK)	
19	1-690-590-31	WIRE (FLAT TYPE) (13 CORE) (CIS)	
81	1-751-025-11	WIRE (FLAT TYPE) (9 CORE)	
83	1-751-210-11	WIRE (FLAT TYPE) (13 CORE)	
117	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
* 261	1-452-538-11	MAGNET	
△306	8-848-144-11	OPTICAL PICK-UP BLOCK (KSS-240A)	
307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
△F101	1-532-286-00	FUSE (T2.5A)	
△F102	1-532-286-00	FUSE (T2.5A)	
△F103	1-532-299-00	FUSE (T5.0A)	
△F104	1-532-299-00	FUSE (T5.0A)	
HP101	A-2003-757-A	BASE ASSY, HEAD	
HRPE101A	2003-930-A	BASE ASSY, HEAD	

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
IC81A	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK A)				*****	
IC81B	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK B)				HARDWARE LIST	
M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)				*****	
M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)		#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
				#3	7-682-560-04	SCREW +BVTT 4X6 (S)	
M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)		#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)		#5	7-621-849-00	SCREW, TAPPING	
M301	X-4917-523-4	MOTOR ASSY (SPINDLE)					
M302	X-4917-504-1	MOTOR ASSY (SLED)		#6	7-627-556-08	SCREW +P 2. 6X2. 8	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		#7	7-621-775-00	SCREW +B 2. 6X3	
△T1	1-423-927-11	TRANSFORMER, POWER (AEP, G, IT, EE, CIS)		#8	7-621-775-10	SCREW +B 2. 6X4	
△T1	1-426-782-11	TRANSFORMER, POWER (UK)		#9	7-621-255-15	SCREW +P 2X3	
△T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, G, IT)					
△T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)					

ACCESSORIES & PACKING MATERIALS							

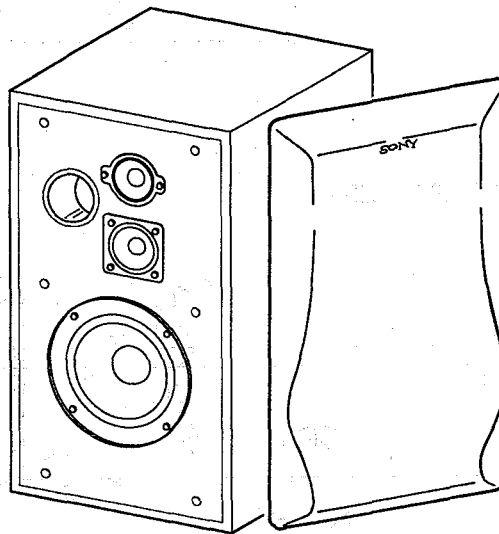
	1-467-547-11	COMMANDER, STANDARD (RM-S421)					
	1-501-374-11	ANTENNA, LOOP (AEP, IT, EE, CIS)					
	1-501-536-11	ANTENNA (AEP, IT, EE, CIS)					
	2-181-754-21	COVER, BATTERY (For RM-S421)					
	3-758-162-11	MANUAL, INSTRUCTION (ENGLISH) (UK)					
	3-758-162-31	MANUAL, INSTRUCTION (GERMAN) (AEP)					
	3-758-162-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)					
	3-758-162-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)					
	3-758-162-61	MANUAL, INSTRUCTION (DANISH, FINNISH) (AEP)					
	3-758-162-71	MANUAL, INSTRUCTION (ENGLISH, RUSSIAN, POLISH) (EE, CIS)					
	3-758-162-81	MANUAL, INSTRUCTION (CZECHOSLOVAK, HUNGARIAN) (EE)					
*	4-963-204-11	CUSHION					
*	4-963-781-01	INDIVIDUAL CARTON (AEP, IT)					
*	4-963-782-01	INDIVIDUAL CARTON (EE, CIS)					

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

SS-A490

SERVICE MANUAL

AEP Model



SPECIFICATIONS

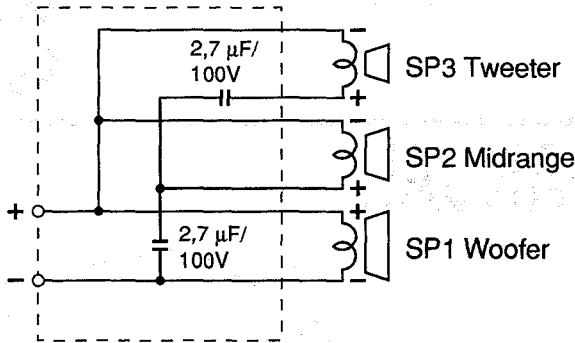
System:	3-way-speaker system
Speaker units:	Woofer: 16 cm, cone type Midrange: 6,5 cm, cone type Tweeter: 5 cm, cone type
Enclosure type:	Bass reflex
Rated impedance:	6 Ω
Power handling capacity:	Maximum input power 100 W
Sensitivity:	88 dB (1 W, 1 m)
Effective frequency range:	50 – 20.000 Hz
Dimensions:	Approx. 260 x 475 x 220 mm (w/h/d)
Weight:	Approx. 5,8 kg per speaker, net Approx. 12,5 kg in shipping carton

Design and specifications subject to change without notice.



SPEAKER SYSTEM
SONY®

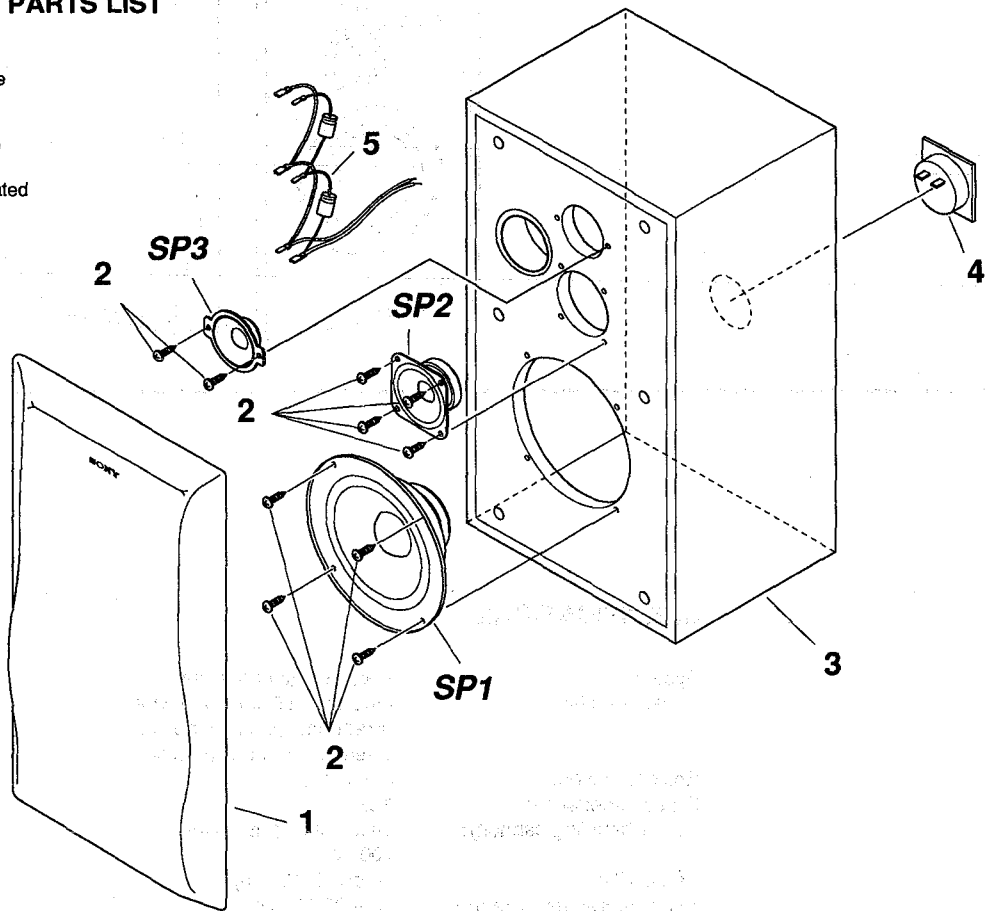
1. SCHEMATIC DIAGRAM



2. EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4944-495-1	GRILLE FRAME ASSY		<ACCESSORIES & PACKING MATERIALS>			
2	4-960-363-01	TAPPING SCREW +B 3,5 X 16		*	4-964-264-01	CARTON	
3	X-4944-494-1	SPEAKER CABINET ASSY		*	4-964-265-01	CUSHION (T)	
4	1-537-529-11	TERMINAL BOARD		*	4-956-768-01	CUSHION	
5	1-751-750-11	INTERCONNECTING CORD WITH CAPACITORS		*	4-956-769-01	POLYETHYLENE BAG	
SP1	1-504-377-11	SPEAKER (16 cm CONE)			3-758-017-01	INSTRUCTION MANUAL	
SP2	1-504-375-11	SPEAKER (6,5 cm CONE)			1-751-495-11	SPEAKER CORD	
SP3	1-504-378-11	SPEAKER (5 cm CONE)					

PS-LX56/LX56P

SERVICE MANUAL

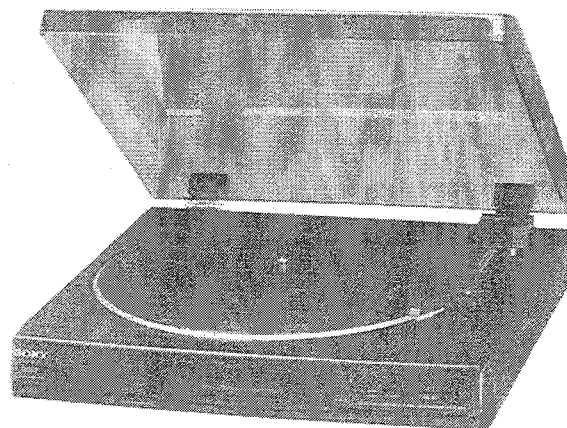


PHOTO : PS-LX56

PS-LX56/LX56P are the turntable section in LBT-A190/A195/A290/A290K/A295/A390/A390K/A395/A490/A490K/A495/D150/D250/D550/G1000/G2000.

US Model
Canadian Model
PX Model
Tourist Model
PS-LX56
AEP Model
E Model
Australian Model
PS-LX56/LX56P
UK Model
PS-LX56P

SPECIFICATIONS

Turntable

Platter 30cm (12 in.)
Motor DC servo motor
Drive system Belt drive
Speed 33 1/3 rpm/45 rpm switchable
Wow and flutter 0.2% (WRMS)
Signal-to-noise ratio 60 dB (DIN-B)
Automatic system Return, reject

Tonearm

Type Dynamically balanced
Pivot-to-stylus length 203 mm (8 in.)
Overall arm length 235 mm (9 1/4 in.)

Cartridge

Type Moving magnet type
Frequency response 20 Hz-20kHz
Stylus CN-234

General

Dimensions 355 x 94 x 345 mm(w/h/d)
(14 x 3 3/4 x 13 5/8 inches)
Weight Approx. 2.5 kg (5 lb 8 oz)
Power requirement US and Canadian model : 120V AC, 60Hz
European model : 220-230V AC, 50/60Hz
Australian model : 240V AC, 50Hz
Model for other countries : 110-120V/220-240V
adjustable with the
voltage selector
AC, 50/60Hz

Power consumption 2 W
Accessory supplied 45-rpm adaptor (1)
Optional accessories Replacement stylus CN-234
Stat spray XP-C10
Cleaner XP-C1, XP-C2

Turntable

Platter 30 cm
Tone arm type Dynamically balanced
Cartridge type Moving magnet type
Stylus Sony CN-234 (0.6 mil diamond)
Mass Approx. 2.3 kg (5 lb 1 oz)
Dimensions Approx. 355 x 95 x 345 mm
(14 x 3 3/4 x 13 5/8 inches)
(w/h/d, including projections)

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

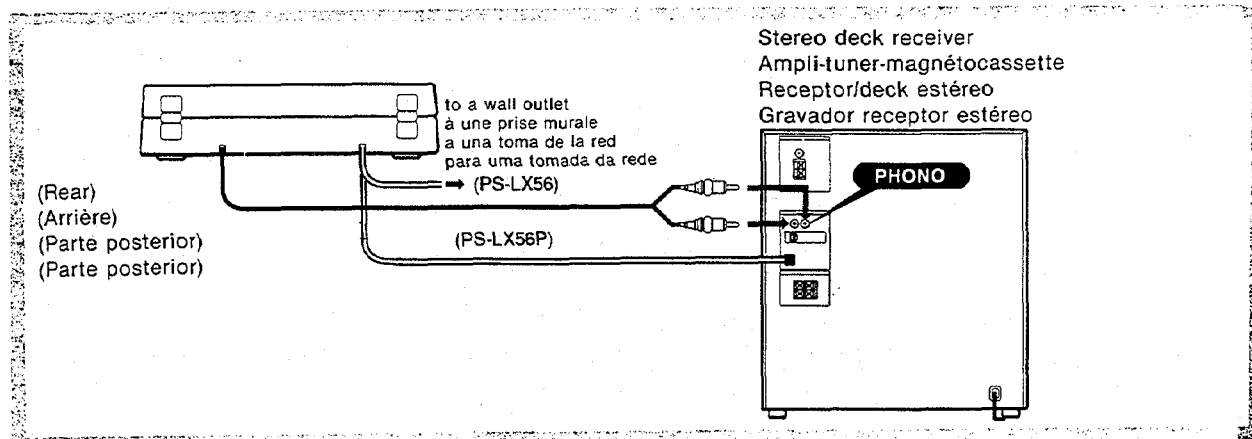


STEREO TURNTABLE SYSTEM
SONY®

Connections

Note

Connect the red plug to the right-channel jack (R), and the white plug to the left-channel jack (L).



Notes on installation

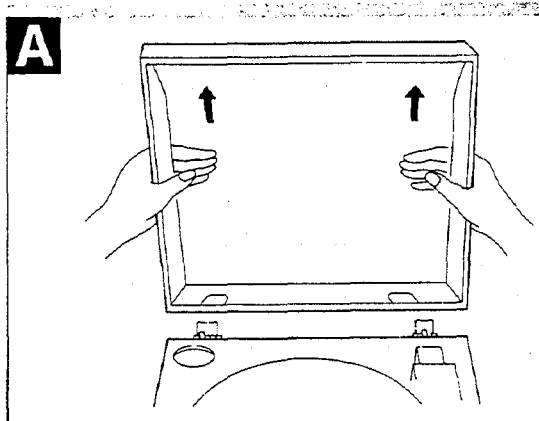
- Place the turntable on a level surface.
- Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
- Place the turntable where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
- Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.

Nota

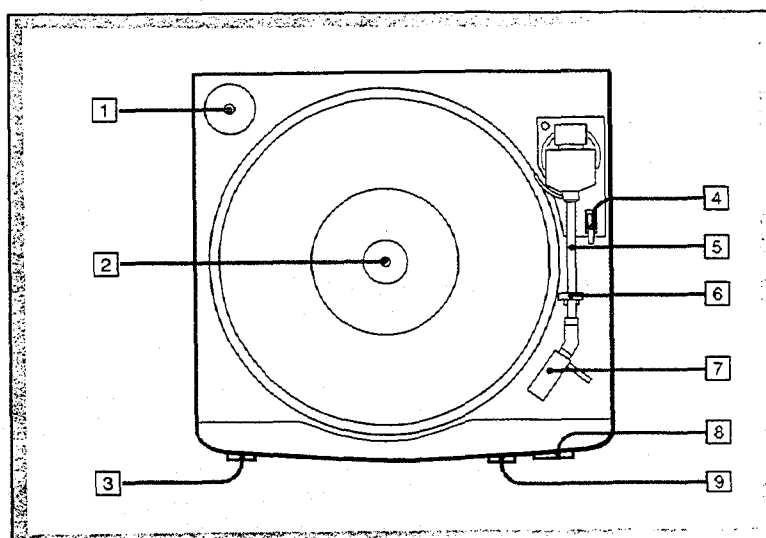
Conecte la clavija roja a la toma del canal derecho (R), y la blanca a la del canal izquierdo (L).

To remove the dust cover **A**

Open the cover fully and pull it up.

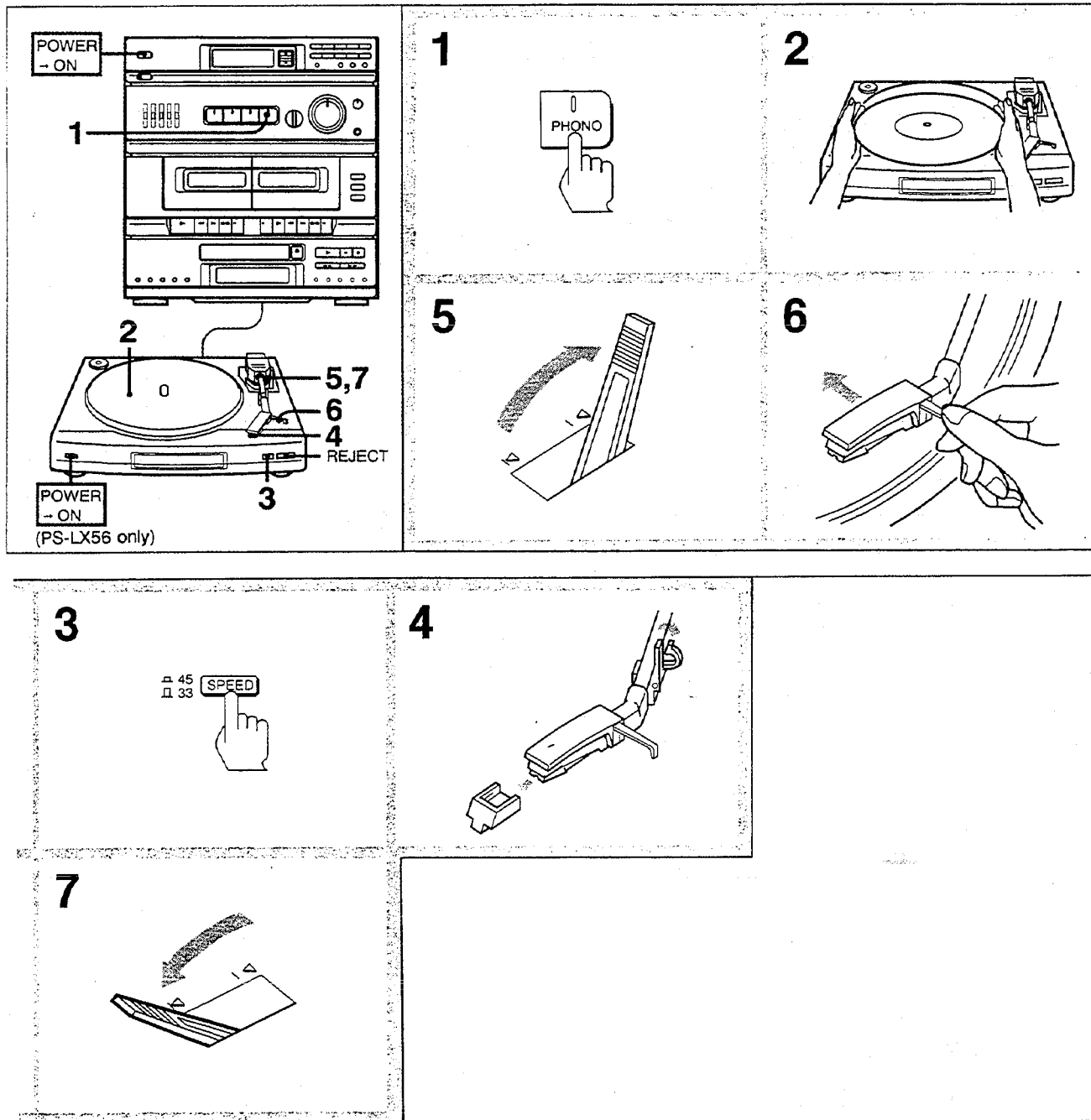


Location of Controls



- 1 45-rpm adaptor
- 2 Centre spindle
- 3 POWER switch (PS-LX56)
- 4 Cueing lever
- 5 Tonearm
- 6 Armrest
- 7 Cartridge
- 8 REJECT button
- 9 Speed selector

Playing Records



When the record is played to the end, the tonearm returns to the armrest and the turntable stops.

To stop during play, press REJECT.

To play a different part of the record

Lift the tonearm by setting the cueing level to ▼, move the tonearm by hand to the desired point, then set the cueing lever to ▼.

To play a 17-cm record

Use the supplied adaptor

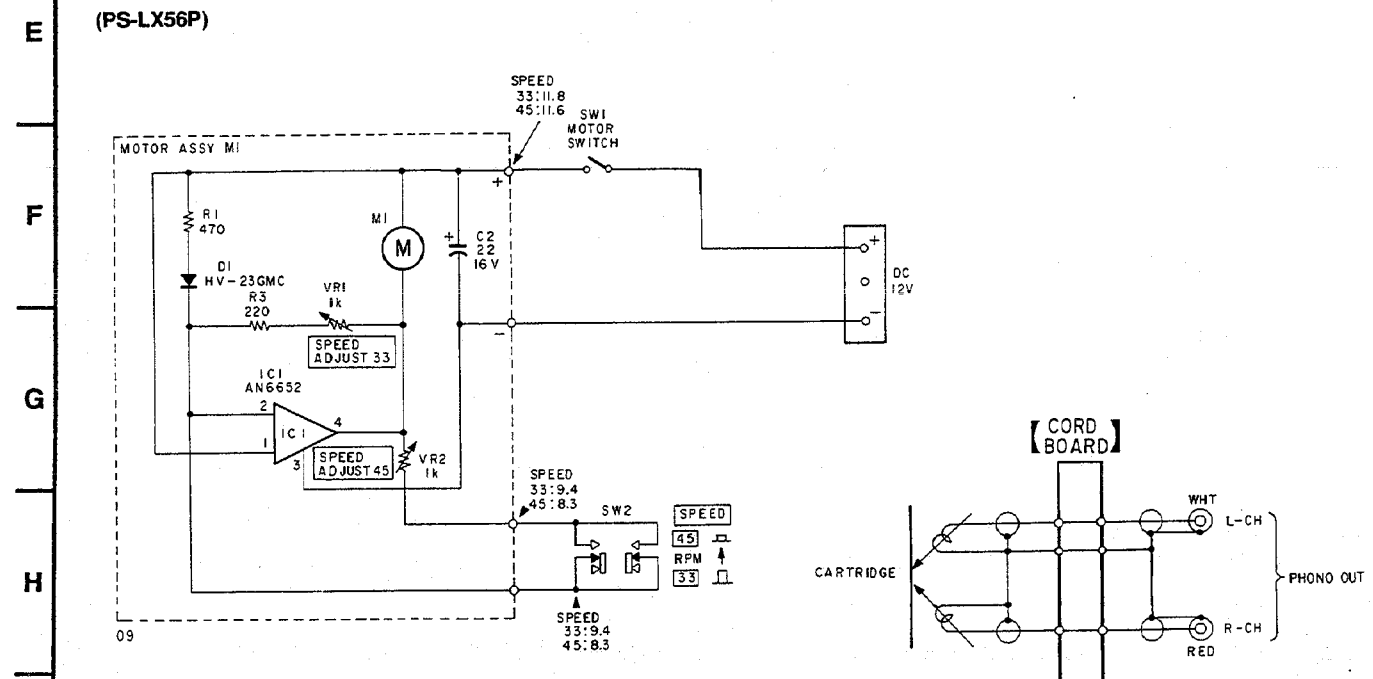
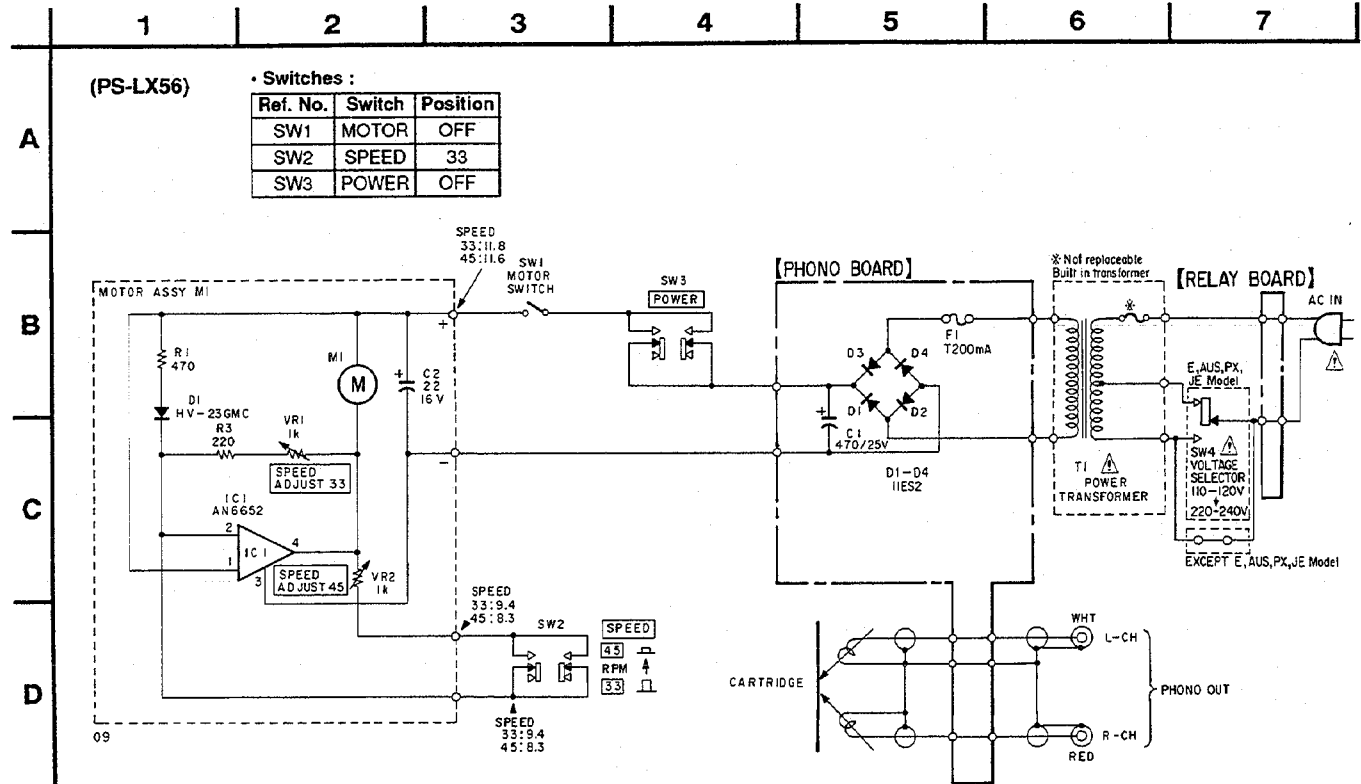
If the tonearm moves outward when you move it close to the centre

Do not resist this movement, as it may damage the automatic return mechanism.

If the tonearm does not return to its armrest

Press REJECT.

SCHEMATIC DIAGRAMS



Note:

- All capacitors are in μF unless otherwise noted. pF ; μF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.

AUS : Australian model
JE : Tourist model

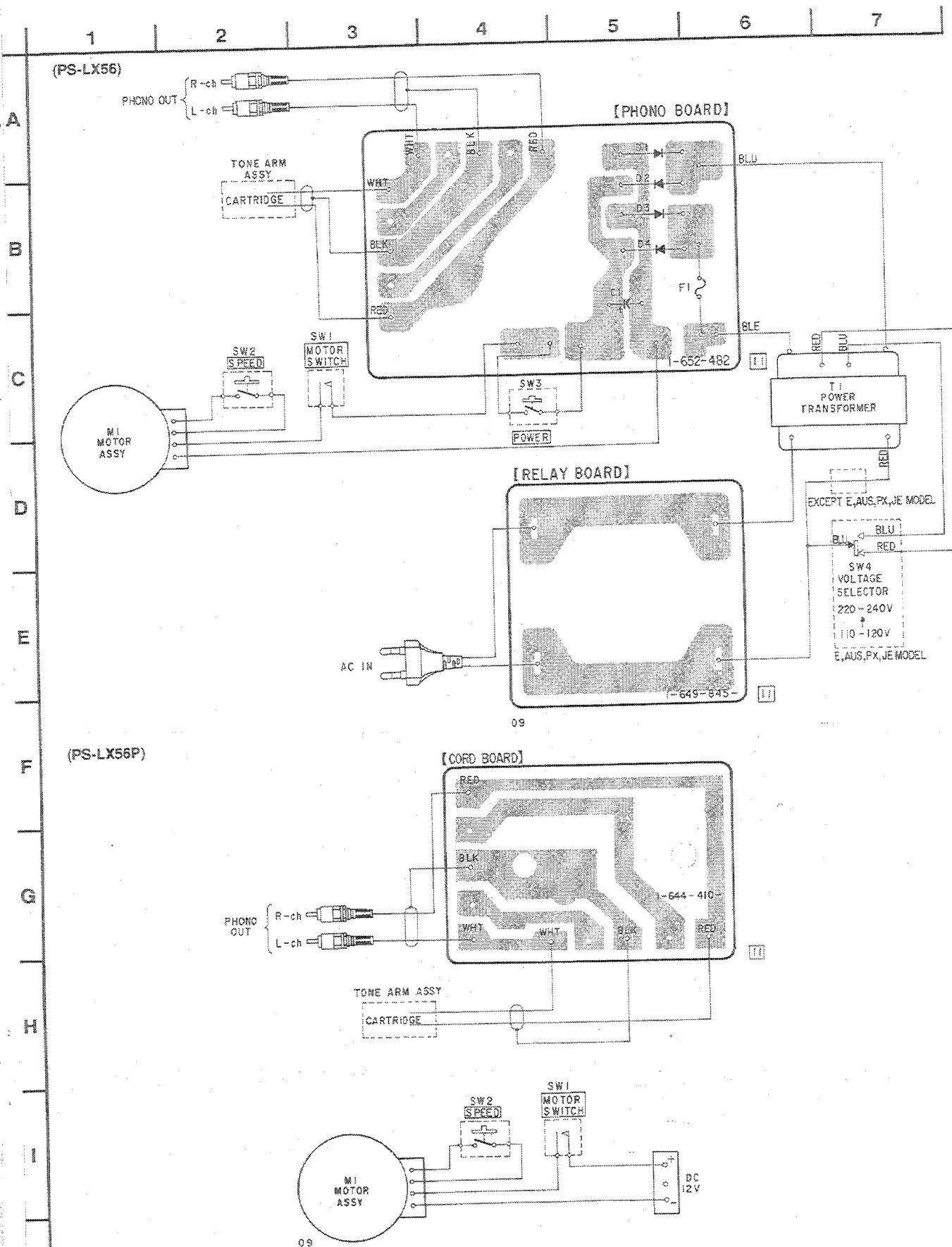
• Switches :

Ref. No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF
SW4	VOLTAGE SELECTOR	240V

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

WIRING DIAGRAMS



Note:
 • ○ — : parts extracted from the component side.



AUS : Australian model
 JE : Tourist model


EXPLODED VIEW

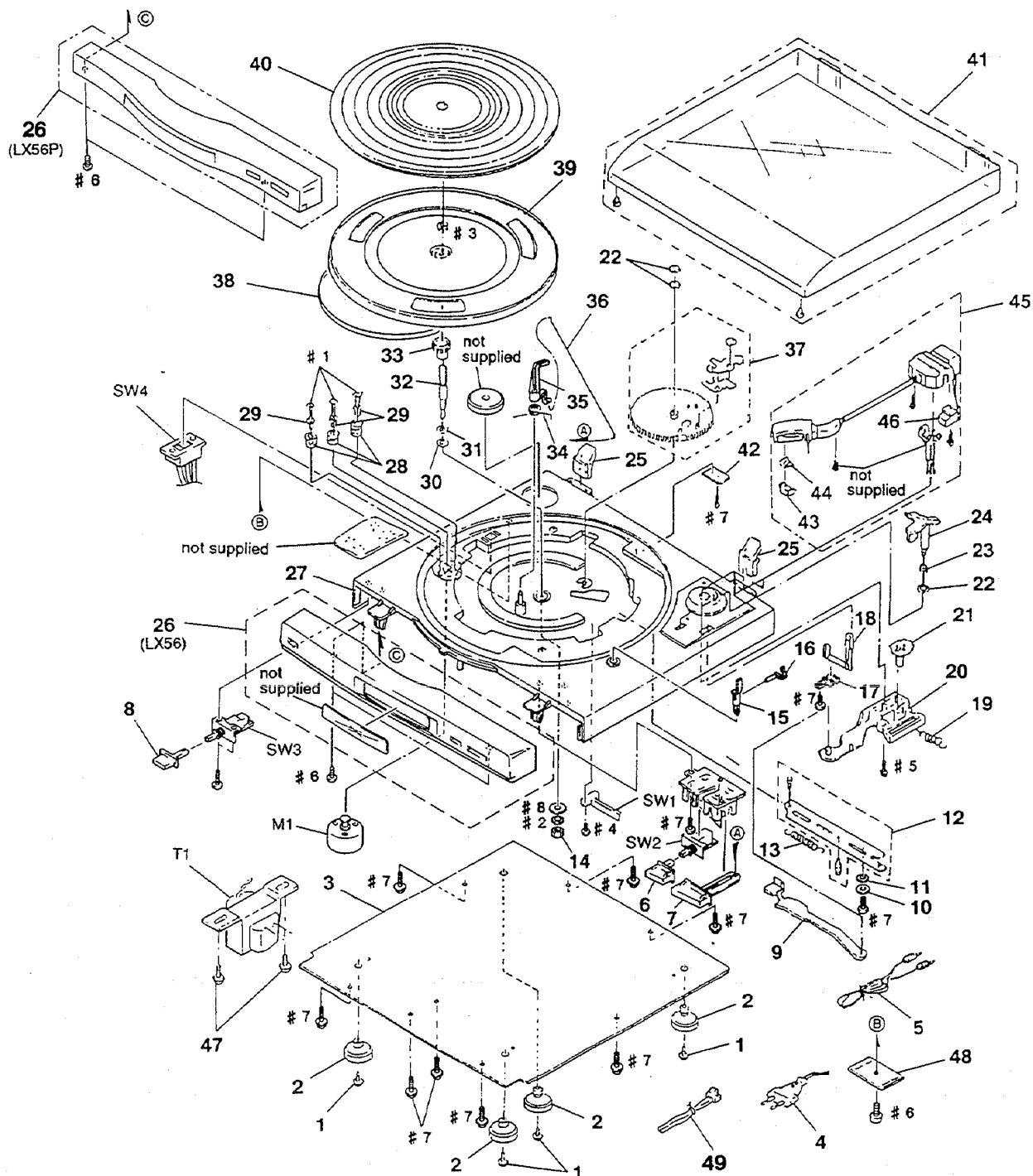
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- AUS : Australian model
- CND : Canadian model
- EE : East European model
- IT : Italian model
- MX : Mexican model
- EA : Saudi Arabia model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-950-497-01	FOOT SEAT		M1	A-4604-945-A	MOTOR ASSY	
2	4-950-490-01	PLASTIC STAND		SW1	1-570-666-11	SWITCH (LEAF)	
* 3	4-961-804-01	BUTTON BOARD		SW2	1-571-089-11	SWITCH, PUSH (SPEED) (1 KEY)	
△4	1-575-651-61	CORD, AC (LX56: AEP, EA, EE, IT, MX, MY, CIS, SP)		SW3	1-692-211-11	SWITCH, PUSH (POWER) (1 KEY) (LX56)	
△4	1-575-975-11	CORD, AC (LX56: CND, US)		△SW4	1-692-835-11	VOLTAGE SELECTOR (LX-56: AUS, E, MX, MY, SP)	
△4	1-590-074-11	CORD, AC (LX56: E)		△T1	1-450-987-11	TRANSFORMER, POWER (LX56: AEP, EE, IT, CIS)	
△4	1-690-608-11	CORD, AC (LX56: AUS)		△T1	1-450-987-21	TRANSFORMER, POWER (LX56: AUS, E, PX, EA, JE, MX, SP)	
5	1-555-116-11	CORD, PHONO		△T1	1-450-987-31	TRANSFORMER, POWER (LX56: MY)	
6	4-964-177-01	KNOB SPEED		△T1	1-450-987-41	TRANSFORMER, POWER (LX56: U, CA)	
7	4-964-178-01	KNOB REJECT					
8	4-964-184-01	KNOB POWER (LX56)					
9	4-947-487-01	RETURN LINK					
10	4-890-173-00	WASHER					
11	3-659-350-00	WASHER					
12	A-4604-947-A	RETURN ASSY, LEVER					
13	4-947-485-01	SPRING (22)					
14	4-947-510-01	NUT					
15	4-947-491-01	ARM REST					
16	A-4660-499-A	ARM CLIP ASSY					
17	4-947-477-01	CUEING (BASE)					
18	4-947-468-01	LEVER, CUEING					
19	4-963-537-01	SPRING					
20	4-963-536-01	LINK RETURN					
21	4-963-535-01	ADJUST CAM					
22	4-947-514-01	4MM CS RING					
23	4-947-467-01	SPRING (6)					
24	4-947-466-01	TONE ARM ELEVATOR					
25	A-4660-498-A	HINGE ASSY					
26	A-4660-577-A	FRONT PANEL (G) ASSY (LX56: GRAY) (US)					
26	A-4660-578-A	FRONT PANEL (G) ASSY (LX56: BLACK)					
26	A-4660-976-A	FRONT PANEL (G) ASSY (LX56P)					
* 27	4-950-487-01	MAIN CABINET (B)					
28	4-947-505-01	CUSHION MOTOR					
29	4-947-504-01	COLLAR					
30	3-451-162-00	WASHER (56)					
31	3-701-445-21	WASHER					
32	4-947-498-01	STELL BALL					
33	4-947-497-01	GEAR					
34	4-947-496-01	SPRING (34)					
35	4-947-495-01	WIPER REJECT					
36	4-948-101-01	SPRING (38)					
37	A-4604-916-A	GEAR ASSY, SPUR					
38	4-947-503-01	BELT					
39	4-947-494-01	TURNABLE PLATTER					
40	4-947-539-01	RUBBER MAT					
41	A-4604-946-A	DUST COVER ASSY					
* 42	1-652-482-11	PHONO BOARD (LX56)					
* 42	1-644-410-11	CORD BOARD (LX56P)					
43	4-948-095-01	COVER, CARTRIDGE					
44	4-951-290-01	STYLUS (CN-234)					
45	A-4604-940-A	ARM ASSY, TONE					
46	4-947-464-01	COUNTER WEIGHT					
47	4-952-961-01	SCREW (LX56)					
* 48	1-649-845-11	RELAY BOARD (LX56)					
49	1-557-109-21	CORD, DC (LX56P)					

CORD PHONO RELAY

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list is given in the last of this parts list.

- SEMICONDUCTORS
In each case, μ : μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- AUS: Australian model
- CND: Canadian model
- EE: East European model
- IT: Italian model
- MX: Mexican model
- EA: Saudi Arabia model
- SP: Singapore model
- MY: Malaysia model
- JE: Tourist

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-410-11	CORD BOARD (LX56P) *****				ACCESSORIES & PACKING MATERIALS *****	
		*****			4-758-045-11	MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	
*	1-652-482-11	PHONO BOARD (LX56) *****			4-758-045-21	MANUAL INSTRUCTION (English) (LX56 US)	
		< CAPACITOR >			4-758-045-41	MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	
C1	1-126-012-11	ELECT 470uF	16V		4-758-045-51	MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)	
		< DIODE >			4-758-045-61	MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	
D1	8-719-200-82	DIODE 11ES2		*	4-947-532-01	SNOW BOX (L)	
D2	8-719-200-82	DIODE 11ES2		*	4-947-533-01	SNOW BOX (R)	
D3	8-719-200-82	DIODE 11ES2				*****	
D4	8-719-200-82	DIODE 11ES2				*****	
		< FUSE >				*****	
Δ F1	1-532-613-XX	FUSE TIME-LAG (T200mA)				HARDWARE LIST *****	
		*****		#1	7-621-773-87	SCREW (64)	
*	1-649-845-11	RELAY BOARD (LX56) *****		#2	7-623-210-22	WASHER (57)	
		*****		#3	7-624-110-04	6MM E RING	
		*****		#4	7-685-105-01	SCREW (59)	
		*****		#5	7-685-645-79	SCREW (68)	
		*****		#6	7-685-646-79	SCREW (60)	
		*****		#7	7-685-647-79	SCREW (58)	
		*****		#8	7-688-005-01	WASHER (69)	

PS-LX56/LX56P

SONY SERVICE MANUAL

^{709A}
US Model
Canadian Model
PX Model
Tourist Model
PS-LX56

CORRECTION-1

Correct your service manual as shown below.

AEP Model
E Model
Australian Model
PS-LX56/LX56P

UK Model
PS-LX56P

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
8	4-758-045-11		MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	3-758-045-11	MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)
	4-758-045-21		MANUAL INSTRUCTION (English) (LX56 US)	3-758-045-21	MANUAL INSTRUCTION (English) (LX56 US)
	4-758-045-41		MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	3-758-045-41	MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)
	4-758-045-51		MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)	3-758-045-51	MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)
	4-758-045-61		MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	3-758-045-61	MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)